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# EXECUTIVE PARK DEVELOPMENT PLAN AMENDMENT

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SUBSEQUENT ENVIRONMENTAL IMPACT REPORT  
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PUBLICATION DATE: SEPTEMBER 9, 1983  
PUBLIC HEARING DATE: OCTOBER 13, 1983  
PUBLIC COMMENT PERIOD: SEPTEMBER 9, 1983 to OCTOBER 28, 1983  
WRITTEN COMMENTS SHOULD BE SENT TO THE ENVIRONMENTAL REVIEW OFFICER,  
450 McALLISTER STREET, SAN FRANCISCO, CA 94102

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CITY AND COUNTY OF SAN FRANCISCO  
DEPARTMENT OF CITY PLANNING

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# EXECUTIVE PARK DEVELOPMENT PLAN AMENDMENT

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## **I. INTRODUCTION AND BACKGROUND**

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### **A. INTRODUCTION**

This document is a "subsequent EIR" to the San Francisco Executive Park Final EIR which was certified by the City Planning Commission on August 12, 1976 by Resolution No. 7542 (EE 75.198, State Clearinghouse Number 76070571). The City's Office of Environmental Review (OER) has determined that preparation of a subsequent EIR is required (Section 15067 of the State EIR guidelines) because of proposed changes to the development plan and changes in setting conditions that were analyzed in the 1976 Final EIR.

### **B. PROJECT BACKGROUND**

The 1976 Final EIR analyzed a project proposed by the Yerby Corporation. That project included development of 853,000 sq. ft. of office space; 174,000 sq. ft. of hotel/meeting space; 75,000 sq. ft. of retail space and parking for about 3,900 vehicles, a total of 1.1 million gross sq. ft. of floor area (exclusive of parking). In addition to certification of the Final EIR, the City Planning Commission undertook several actions to approve the Yerby project. To permit development of the proposed commercial uses, the Commission revised the text and maps of the South Bayshore Plan, Open Space and Recreation Element, and Transportation Element of the San Francisco Comprehensive Plan (Resolution No. 7543, August 12, 1976). The Commission also approved a zoning reclassification from RH-1 and M-1 to C-2 district and a height district reclassification from 40-X to 230-G (Resolution No. 7546, August 26, 1976).

By its Resolution No. 7547 (August 26, 1976), the Planning Commission required the Yerby Corporation to prepare a detailed development plan and requested that Department of City Planning (DCP) staff review any subsequent changes to the development plan and all building permit applications for the site. Resolution No. 7547 further directed DCP staff to submit to the Commission for discretionary review any change or building permit application that might have detrimental effects on the environment or be in conflict with the Comprehensive Plan.

## I. Introduction and Background

On August 21, 1978, the Commission adopted a development plan proposed by the Yerby Corporation. Campeau Corporation California purchased the Executive Park site in December 1979. Under provisions of Resolution No. 7547, Campeau Corporation requested and the City Planning Commission approved two changes to the 1978 Yerby Development Plan, one on December 15, 1980 (Resolution No. 9089) and another on August 6, 1981 (no resolution action). These two design changes slightly altered the locations, heights or amounts of proposed uses; however, the mix and total amount of square footage of proposed uses remained approximately the same as the 1.1 million sq. ft. analyzed in the 1976 Final EIR and proposed in the 1978 Yerby Development Plan. See Appendix A, p. 193 and Table A-1, p. 194 for a chronology of City Planning Commission actions concerning the Executive Park site.

The City Planning Commission has reviewed and granted discretionary review approval for four office buildings and a restaurant under the 1978 Yerby Development Plan. Building permits have been approved for three of the office buildings. Two buildings have been constructed, Office Building 1 (OB 1) and Office Building 2 (OB 2); a third building, OB 3, has been approved and its building pad completed. Building permits for the fourth building, OB 4, and a proposed restaurant on Alana Way, have not been issued yet.

The Development Plan Amendment, which is the subject of this EIR, would amend the 1978 Yerby Development Plan by proposing additional office space and introducing a new use -- housing. New construction proposed in the Development Plan Amendment would total about 1.85 million gross sq. ft. of floor area, exclusive of the 499,000 sq. ft. of floor area approved for development in OB 1 - OB 4 and in the Alana Way restaurant. The Amendment would represent a net increment of 1.24 million sq. ft. of floor area over the approved 1978 Development Plan. The net increment of new construction over buildings completed or approved for construction (OB 1 - OB 4 and the Alana Way restaurant) would be 748,000 gross sq. ft. of floor area. Included in this amount are a net increase of about 311,000 gross sq. ft. of office and 12,000 gross sq. ft. of retail space, and an addition of 425,000 gross sq. ft. of housing. If the proposed Development Plan Amendment is approved, total development at the Executive Park site would be 2.35 million sq. ft. with about 5,100 parking spaces. A comparison of full buildout of the approved 1978 Yerby Plan and full buildout of the Campeau Development Plan (including the proposed amendment) is given on p. 3; see also Appendix A, Table A-2, p. 195).



## I. Introduction and Background

<u>Proposed Use</u>	<u>1978 Yerby Plan* (sq. ft.)</u>	<u>Total Executive Park Development (with Amendment) (sq. ft.)</u>
Office:	839,000	1,644,000
Hotel:	239,000 (420 rooms)	234,000 (350 rooms)
Retail/Restaurant:	33,000	50,000
Housing:	<u>0</u>	<u>425,000</u>
TOTAL:	1,111,000	2,353,000
PARKING:	2,255 (spaces)	5,100 (spaces)

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\* The Plan that was approved in 1978 differs from the project that was analyzed in the 1976 Final EIR. The project analyzed in the Final EIR included 853,000 sq. ft. of office space; 140,000 sq. ft. of convention and retail space; 118,000 sq. ft. of hotel space; and about 3,900 parking spaces. See also Appendix A, Table A-2, p. 195.

### C. APPROACH TO ANALYSIS

Total square footages and uses of the proposed Development Plan Amendment (hereinafter referred to as the proposed project) have been determined; however, the precise design and spatial arrangement of proposed uses are not known at this time. Because the design of the Development Plan Amendment has been conceived at a conceptual level of detail, this EIR presents a "master plan" approach to analyze impacts and to define mitigation measures. This type of approach analyzes the square footages and uses of the proposed project, but reserves future review of specific design and site layout features when building permit approvals for each building are sought by the sponsor.

Such later review of design elements such as the location, height, and exterior facade treatments of each building could be required by the City Planning Commission as a condition for approval of the Development Plan Amendment.

The proposed project would be built in eight phases over a ten-year buildout period. Impacts have been analyzed for full project buildout, except when the introduction of an

## I. Introduction and Background

individual phase of development would change substantially the nature or magnitude of an impact. A "full buildout analysis" describes the project as if all development would occur at one point in time when in actuality the project would be developed incrementally over ten years. Therefore, the impact discussion does not fully account for adjustments or changes in market conditions or public policy during development of project phases.

Buildings that have been approved as part of the Yerby Development Plan are not considered part of the proposed project or as part of the project area. OB 1 and OB 2, which have been constructed and occupied, are considered part of the setting. OB 3, OB 4 and the Alana Way restaurant, which have been approved but not yet constructed, are analyzed as generators of cumulative impacts associated with full buildout of the Executive Park site.

Where appropriate and as provided for in Section 15149 of State EIR guidelines, information has been incorporated by reference from the 1976 Final EIR. Mitigation measures identified in the 1976 EIR or required as part of approval of the Yerby Development Plan would remain applicable for the proposed project. Those measures which have been implemented as part of development of OB 1 and OB 2 are included in the description of setting conditions. Measures which are required, but have not yet been implemented, are included in Section VI., and are considered as measures which would reduce the impacts of full project buildout.

For consistency in nomenclature and to distinguish the currently proposed project from the approved 1978 Yerby Development Plan and 1980 and 1981 design changes, the following titles will be used throughout this EIR:

- Proposed Project ("project") will refer to the proposed Development Plan Amendment, consisting of 1.85 million sq. ft. of development (exclusive of OB 1 - OB 4 and the Alana Way restaurant).
- Project area will refer to the 50-acre site of the proposed Development Plan Amendment, generally located north and west of Executive Park Blvd. The project area does not include the sites of the Alana Way restaurant or OB 1 - OB 4, which, except for OB 4, are located south of Executive Park Blvd.
- Executive Park site (or "project site") will denote the entire 71-acre site, including OB 1 - OB 4, and the Alana Way restaurant.
- 1978 Development Plan will refer to the 1978 Yerby Development Plan that was adopted by the City Planning Commission (Resolution No. 7547) and the

## I. Introduction and Background

approved changes to that Plan requested by Campeau Corporation in 1980 (Resolution No. 9089) and 1981 (no resolution action).

- The Executive Park Development Plan (Full-Buildout Plan) will indicate the new total development plan for the Executive Park site, should the proposed amendment be approved. It would consist of the 1.85 million sq. ft. of floor area analyzed as the "proposed project" in this EIR, and the 499,000 sq. ft. of office and restaurant space already approved in OB 1 - OB 4 and the Alana Way restaurant, a total of 2.35 million sq. ft. of development at the Executive Park site. About 5,100 parking spaces would be provided in the Full-Buildout Plan.

The reader may occasionally need to refer back to the definitions above during his or her review of the EIR.



## II. SUMMARY

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### A. PROJECT DESCRIPTION

This document is a subsequent EIR to the San Francisco Executive Park 1976 Final EIR which analyzed 1.1 million square feet of office, hotel and retail space proposed by the Yerby Corporation. The proposed project, which is the subject of this EIR, would amend the Yerby Plan by proposing additional office space and introducing a new use--housing. (See I. Introduction and Background, pp. 1-5). The square footage of the proposed Development Plan Amendment would be about double that which was approved under the Yerby Plan.

Campeau Corporation of California acquired the Executive Park site from the Yerby Corporation in December 1979. Campeau was not satisfied with the scale, design or mix of uses in the Yerby Plan and has proposed an amendment. Campeau Corporation California proposes to develop the project area into office, residential, hotel/meeting, retail, and restaurant space. The project is intended to provide employment opportunities outside of the Downtown, attract new businesses to San Francisco, and retain those that might be considering leaving the City for a more convenient suburban location. The 50-acre site is Lot 87 in Assessor's Block 4991. It is located at the southeastern boundary of the City and County of San Francisco near Candlestick Park Stadium. The project area is bounded on the west by US 101 (the Bayshore Freeway); on the south by the existing Executive Park office complex; on the east by Jamestown Ave. Extension, and on the north by Bayview Hill.

The project would consist of approximately 1.15 million sq. ft. of office space, 425,000 sq. ft. of residential use (500 units), 234,000 sq. ft. of hotel (350 rooms) and meeting space, 45,000 sq. ft. of restaurant and retail space and 4,300 parking spaces, a total of about 1.85 million gross sq. ft. of floor area (exclusive of parking). The proposed project would represent an increment of about 748,000 sq. ft. over floor area already completed or approved for construction under the Yerby Master Plan. Of this amount, there would be a net increase of about 311,000 sq. ft. of office and 12,000 sq. ft. of retail space, and an additional 425,000 sq. ft. of housing. If the proposed development plan

amendment is approved, there would be a total of 2.35 million sq. ft of development at the Executive Park site with 5,100 parking spaces.

The proposed project would be constructed in eight phases over a ten-year period beginning in 1986. Construction would occur in three major areas of the site. (See Figures 2 and 4 on pp. 22 and 24 for the boundaries of these areas.) Area 1, located north of Executive Park Blvd., would contain a cluster of office buildings and a Town Center plaza. The office structures in Area 1 would range from 65 to 165 ft. in height. North of this cluster would be Area 2, where a combined office/housing/parking complex and a hotel/meeting facility would be constructed. The height of the office/housing/parking complex structure would be about 120 ft.; the height of the hotel structure would be a maximum of 160 ft. From the hotel, a funicular (tramway) would provide access to a hillside restaurant. Area 3 would be on the eastern portion of the site. In Area 3, a housing complex containing 400 units would be built. The heights of the housing structures would range from 40 ft. to about 120 ft.

Precise locations and exterior facade treatments of individual buildings are not known at this time. The site layout is intended by the project architect to preserve Bayview Hill as a dominant feature of the site.

For vehicles approaching the project area from the north and south, the principal access would be from US 101. Eastbound vehicles could use Beatty Ave. or Blanken Ave.; westbound traffic (from Bayview Hunters Point) would use Harney Way via Jamestown Ave. Extension.

Proposed hillside planting would be a combination of trees, cascading plant materials and large shrubs, including plants and ground covers which would be predominantly native California species. A hillside trail system, accessible to the public, would be provided to link Bayview Hill and Candlestick Point State Recreation Area.

### **B. ENVIRONMENTAL EFFECTS**

A Final Initial Study for the project, published September 24, 1982, determined that the proposed project would have no significant environmental effect in the following areas: relocation of residents or businesses, airport and construction noise, shadows, public

services and utilities, health hazards and historic and archaeological resources; these issues were focused out of the EIR and require no further discussion (see Appendix B, pp. 199 and 201).

Land Use and Zoning (see Section V, p. 69). The project would replace 23 acres of vacant land with office, residential, hotel/meeting, retail and restaurant uses, leaving 27 acres as open space. Project residents, office workers and hotel visitors could increase patronage of businesses along Bayshore Blvd., San Bruno Ave., Third St., and Leland Ave. The project area is currently in the 40-X and 230-G Height and Bulk districts (see Figure 7, p. 36). For all portions of the site in the 40-X district, except for two lower tiers of housing in Area 3, the sponsor would request a reclassification to the 165-G district. The project would require a text amendment to the South Bayshore Plan of the Comprehensive Plan to permit residential use on the site.

Visual Features (see Section V, p. 73). The project would alter the existing visual character of the site through grading and new building construction. The proposed buildings, ranging in height from 40 ft. to 165 ft., would become the dominant visual element on the site. Views from surrounding locations such as Bayview Hill, Little Hollywood, Brisbane and Visitacion Valley would be altered; the project area would no longer appear as vacant open space; instead, it would appear as a series of clustered buildings varying in shapes and heights at the foot of Bayview Hill with a funicular and restaurant on the upper hillside. Approximately 27 acres of the upper slopes of Bayview Hill would remain undeveloped open space with hillside trails accessible to the public.

Wind (see Section V, p. 74). The strongest and most frequent wind direction near the project area (as measured at the San Francisco Airport) during most months is from the west. Wind speeds and direction in the project area are influenced by Bayview Hill, north of the site, and US 101, which is built on raised fill and forms a western barrier to the project area. Wind speeds discussed in this summary subsection refer to average summer month afternoon winds, which are the highest winds in San Francisco.

Overall, the project would have little or no change (mostly beneficial) on existing average wind speeds at off-site locations, including Candlestick Park Stadium, Little Hollywood, Bayview Hill Park, and the Candlestick Point State Recreation Area.



### West Winds

For west winds, the project would decrease substantially the existing average wind speeds in the northern and eastern portions of the site. Average summer afternoon wind speeds at pedestrian walkways and at entrances to office buildings and the hotel complex would be reduced from approximately 13 miles per hour (mph) to four mph. At the Town Center plaza, winds would decrease from 17 mph to ten mph. West winds at the proposed hillside restaurant would be gusty and average 19 mph. A 19 mph wind would cause discomfort, blowing hair and clothing. An upwardly swirling wind (vertical vortex) would be formed in the area of housing proposed on the western portion of the site near US 101.

### Northwest Winds

With northwest winds, pedestrian walkways and entrances to office buildings in Area 1 and the office/hotel complex in Area 2 would have average summer afternoon winds of three mph, with one measurement (just east of OB 4) of zero mph; the area east of OB 4 currently experiences average wind speeds of 12 mph. Average speeds would be five mph in the Area 3 eastern housing complex, compared to the existing ten mph.

### Southwest Winds

Under southwest wind conditions, average wind speeds in the northern and eastern portions of the site would decrease, except in the Town Center plaza, where average summer afternoon winds would increase from ten to 14 mph. At 14 mph, pedestrians would experience unpleasant blowing of hair and dust, and some flapping of clothes. The hillside restaurant would experience average winds of 13 mph with frequent gusts. The project would decrease average winds in Candlestick Park Stadium, from about eight mph to six mph.

Transportation, Circulation and Parking (see Section V, p. 79). Construction truck traffic would result in a slight lessening of the capacities of access streets and haul routes because of the slower movements and large turning radii of the trucks. During later stages of construction (Phases Five - Eight), truck traffic during peak hours could be an impact on the internal street system serving the project area (Harney Way, Alana Way, and Executive Park Blvd.), because of increased traffic volume from project development. Truck volumes during Phases Five through Eight are expected to be low (about one trip per hour average).

## II. Summary

Shortly before the start of construction, the project contractor and the Department of Public Works would determine haul truck routes that would minimize the impacts of construction truck traffic. Blanken Ave. has a truck restriction in effect and would not be used as a haul route during project construction.

At completion (1995), the proposed project would generate about 16,700 daily vehicle trip ends (vte), of which about 2,700 would occur during the p.m. peak hour. Daily transit person trips generated by the project would be 1,600, of which 250 would occur during the p.m. peak hour.

On-site cumulative development (OB 3, OB 4, and the restaurant on Alana Way) would be expected to generate about 3,000 vte per day (600 peak hour vte) by 1985. Local cumulative development in the proposed Southern Pacific Bayshore Office Park and Baylands Development Area of Brisbane would be expected to develop concurrent with the project (by 1995); that development would generate a total of about 42,000 vte per day, of which about 10,800 vte (1,500 peak-hour vte) would be expected to use the local street system (Tunnel Ave., Beatty Ave., Alana Way and Harney Way).

Because the existing local street system is not designed to accommodate this amount of traffic, staged improvements would be required to accommodate the additional traffic from the Executive Park site and from local cumulative development in Brisbane (see Mitigation Measures, p. 150 and Table 16, p.151).

Without these suggested improvements, three intersections (Alana Way / Beatty Ave; Harney Way / Alana Way; and Alana Way / Executive Park Blvd.) would operate at Level of Service F.

Although the project street system has been designed to minimize effects on Blanken Ave., the connection with Blanken Ave. would be maintained similar to its present condition. Thus, some project traffic would be expected to use Blanken Ave. if Executive Park Blvd. West, Alana Way or Harney Way were to become congested. Project traffic may cause an increase of 1,900 vehicles per weekday on Blanken Ave. (weekend increases may be about 400 vehicles per day). Peak-hour increases from the project may be about 300 vehicles, which would be well within the functional capacity of Blanken Ave.; however, the increase in traffic volumes would be noticeable to neighborhood residents.

Traffic from the project and from on-site (OB 3 and OB 4) and local cumulative development would cause project area intersections to operate in the Level of Service D range with the above improvements (see Table 6B, p. 91); any added traffic attributable to games or events at Candlestick Park Stadium would disrupt traffic operations in the vicinity of the project area, especially during the peak hour. On the basis of the proposed 1983 schedule for the stadium, there would be an average of ten days per year that Candlestick Park traffic would overlap with p.m. peak-hour project traffic.

Southbound US 101 currently operates at capacity in the p.m. peak hour (northbound in the a.m. peak hour). On-site cumulative development (OB 3, OB 4 and the Alana Way restaurant), local cumulative development in Brisbane, and regional cumulative development along the Bayshore Freeway (US 101) corridor and in downtown San Francisco would generate about 1,950 vte southbound and 4,150 northbound in the p.m. peak hour on US 101. Additional trips from proposed cumulative development alone could not be absorbed during the peak hour on US 101. This would occur even without addition of the trips from the proposed project (1,000 vte southbound and 650 vte northbound). The effect of the added cumulative development and project trips would be to spread peak-of-the-peak conditions (currently less than 15 minutes) over two hours of the three-hour peak period.

Air Quality (see Section V, p. 100). The major contributor of air pollutant emissions by the project would be project-generated traffic. Implementation of the project would add to local and regional accumulations of hydrocarbons, CO, particulates, nitrogen oxides (precursors of ozone), and sulfur oxides. Neither the project nor other development in the project vicinity would conflict directly with the control strategies of the Bay Area Air Quality Plan. The project would generate a maximum of 0.2% of total regional air pollutant emissions. No violations of any applicable standards are predicted to occur.

The highest predicted carbon monoxide concentrations, up to 82% of the standard, for the project-plus-cumulative case, would occur along the west side of US 101 between Blanken Ave. and Alana Way. The largest percent increase due to the project, 31%, would occur along Harvey Way between Thomas Mellon Drive and Executive Park Blvd. (East).

Noise. In the western half of the project site, in Little Hollywood and in the sections of Visitacion Valley and Bayview Hunters Point nearest to US 101, increased noise levels



produced by traffic on the local streets would be masked by traffic on US 101. In the eastern half of the project site and other areas similarly located farther from US 101, the increased local traffic volumes would dominate the noise environment. The only receptor point predicted to experience a noise increase of three dBA or more (which is the minimum perceptible to most people) is located in the eastern half of the project site, along Harney Way.

During detailed design, the housing proposed in all areas of the site would require a noise-reduction analysis because ambient noise levels are above 60 dBA, the maximum level recommended for residential uses in the San Francisco Environmental Protection Element.

Energy (see Section V, p. 107). On-site construction activities associated with the ten-year project construction period are projected to consume 300,000 kWh of electricity, 50,000 gallons of diesel fuel and 56,000 gallons of gasoline. The project would be designed to comply with applicable Title 24 energy efficiency standards. The project would increase annual consumption of natural gas by about 134.4 billion Btu and electricity by about 274.9 billion Btus a total of 461.3 Btu, when construction energy, including that used in transport and materials manufacture, is amortized over the 50-year life of the project.

Geology, Seismicity and Hydrology (see Section V, p. 114). Project grading would change the existing man-made topography of the project area to a series of level benches separated by moderately steep slopes (2:1). After grading activities, exposed slopes would be landscaped and hydroseeded as soon as possible for erosion control. About 850,000 total cubic yards would be excavated during the eight phases of project construction, most of it in Phase One. This amount would be similar to the amount that would be excavated under the Yerby Plan. Of this amount, approximately 25,000 cubic yards would be emplaced on-site as compact fill; the remaining material would be transported to the Candlestick Point State Recreation Area or to the Southern Pacific development sites in Brisbane, where it would be used for fill. A maximum vertical cut into the hillside of 85 ft. and an average cut of 45 ft. in depth are proposed. All buildings would be designed to meet seismic design standards as specified in the San Francisco Building Code. Groundshaking would be the greatest potential seismic hazard on the site; all structures would be designed to resist the lateral loads induced by earthquake shaking. Surface water runoff would be directed to minimize erosion and sediment.



Ecology (see Section V, p. 119). The project would remove all vegetation within the 23 acres proposed for development. Some vegetation on the upper slopes would also be removed for construction of the funicular and restaurant. The project would decrease by about 23 acres the undeveloped lands in the County of San Francisco available for colonization and growth of native California plants currently growing at the site. The project would eliminate the habitat for wildlife now inhabiting the 23 acres of the project area that would be developed, and would reduce available forage for animals occupying adjacent areas and feeding on the site. A site investigation by a qualified biologist indicates that the project would not eliminate populations of San Bruno elfin, mission blue or Callippe Silverspot butterflies, rare and endangered species known to occur in the vicinity of the project area. The project could have indirect effects on these species and their host plants which occur immediately north of the site in Bayview Hill Park. A conceptual hillside planting program has been developed, that would hydroseed all slopes and cover exposed slopes with cascading plants. Plant materials would be predominantly native California species.

Employment, Housing and Fiscal Factors (see Section V, p. 121). The proposed project would provide about 500 person-years of construction labor during the ten-year construction period. The proposed project would create employment opportunities for about 5,000 workers, for a total of 7,000 jobs created at the Executive Park site at full buildout. Secondary employment generated through the multiplier effect would vary, depending on the types of tenants that would occupy the project.

On the basis of the difference between office space already completed or approved under the Yerby Development Plan and office space proposed in the project (311,000 sq. ft.), the City could require the sponsor to provide 276 housing units (Interim Guidelines of the "Office/Housing Production Program" (OHPP), January 1982). This requirement could be met by the 500 units proposed for the site.

Net revenue to the City's General Fund generated from the project would total about \$4.24 million (1982-83 dollars) from property, payroll, gross receipts, hotel, and sales taxes. The project could generate an operational cost deficit to Muni of \$163,000 based on an increased ridership of 420,000 rides per year; project contributions of \$456,900 to Muni from the General Fund would offset this deficit, if General Fund revenues distributed to Muni are similar to the distribution of the 1982-83 fiscal year.

Growth Inducement (see Section V, p. 140). The project may create incentive for additional retail stores and restaurants to open in the vicinity of the project. The industrial area southwest of the site along the Brisbane - San Francisco border could become a desirable location for future office development, if the project were built. This could indirectly stimulate growth on nearby commercial streets such as Third St., San Bruno Ave. and Leland Ave.

Community Participation (see Section V., p. 142). According to the project sponsor, it has been meeting with the San Francisco Executive Park Advisory Committee, since Campeau's acquisition of the site in 1979. The Advisory Committee consists of representatives from Little Hollywood, Visitacion Valley and Bayview Hunters Point. As part of the planning of the Development Plan Amendment, the sponsor and its representatives have met with individuals and organizations throughout the community. Major areas of concern and interest expressed about the project are traffic generation, and employment opportunities at the project.

### C. MITIGATION MEASURES (see Section VI, p. 145)

Various mitigation measures have been identified that would reduce or eliminate potential environmental effects of the proposed project. Mitigation measures included in the proposed project are: stepping back of structures, preserving views of Bayview Hill above the 230 ft. elevation, and landscaping portions of the site.

As with the construction of OB 1 and OB 2, the sponsor would coordinate with Williams & Burrows General Contractors to provide construction employment opportunities for residents of Bayview Hunters Point, Little Hollywood and Visitacion Valley. The sponsor has worked, and would continue to work, to improve local resident employment opportunities during operation of the project.

Muni is currently considering extension of the No. 29 Muni bus line to the Executive Park site. The extension would require an at-grade crossing at the Southern Pacific Railroad tracks. If this extension occurs, traffic generated by the project might be decreased.

To accommodate the additional traffic on streets within the project area, staged improvements such as intersection signalization and roadway widening are suggested as mitigation measures as the intensity of development in the project area increases (see VI, p. 150 and Table 16, p. 151). With improvements, the four intersections (Alana Way / Beatty Ave.; Harney Way / Alana Way; Alana Way / Executive Park Blvd.; and Blanken Ave. / Executive Park Blvd.) in the project vicinity would be expected to operate at Level of Service D or better during the 1995 p.m. peak hour.

The project sponsor has not committed to pay for extension of the No. 29 line or for staged roadway improvements.

Also included as mitigation measures are the incorporation of energy-conserving design measures, and preparation of a detailed foundation and engineering study prior to construction of each building.

The project would include 500 units of housing, which would partially meet the total project housing demand of 1,022 - 1174 units. The unmet demand of 522-674 units would not be provided by the sponsor, primarily because Campeau believes that the OHPP formula should apply only to the additional office space proposed in the project, beyond that already approved in the previous development plan; this would lead to an OHPP formula demand for 276 units.

In addition to the measures above, many of the measures identified in the 1976 Final EIR and previously required by the City Planning Commission as conditions of approval for the Yerby Development Plan remain applicable and are included as part of the project.

### **D. SIGNIFICANT ENVIRONMENTAL EFFECTS** (see Section VII, p. 163)

During the p.m. peak hour, the proposed project, combined with on-site, local, and regional cumulative development, would degrade the current p.m. peak hour Level of Service on US 101 southbound from E to F, and on US 101 northbound from B to F (or extend the period during which Level of Service E occurs).



**E. SHORT-TERM USES AND LONG-TERM PRODUCTIVITY (see Section VIII, p. 164)**

Effects that would occur during the life of the project include loss of open space; visual alteration of the site; alteration of wind patterns (mostly beneficial); an increase of 5,000 employment opportunities; 500 additional residential units; increased traffic congestion; increased revenues to the City from property taxes; and the removal of plant and wildlife habitat.

**F. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES (see Section IX, p. 165)**

Energy consumed by the project would be an irreversible commitment of energy resources. Proposed roadway improvements could commit future generations to expansion of commercial development in the project vicinity. Once development occurs, subsequent purchase of the project area for open space would be infeasible.

**G. ALTERNATIVES TO THE PROPOSED PROJECT (see Section X, p. 166)**

Alternative A: No Project: No Development of the Site Beyond OB 1 - OB 4. This alternative would involve the construction of OB 3, OB 4 and the Alana Way restaurant. These buildings are not part of the project and have already been approved under the previous Yerby Development Plan. Conditions associated with this alternative would be most similar to those discussed in the Environmental Setting section of this report, except that it would involve the addition of 284,000 sq. ft. of office space and 5,000 sq. ft. of restaurant space. Alternative A would not construct hotel and residential uses within the project area.

Alternative B: Continued Buildout of the Yerby Development Plan. This alternative would continue development of the Yerby Development Plan, including changes approved in 1980 and 1981. Alternative B would involve the construction of 345,000 sq. ft. of office space (not including OB 1 - OB 4), 28,000 sq. ft. of retail/restaurant space (not including the Alana Way restaurant) and 239,000 sq. ft. of hotel space (420 rooms) for a total of 612,000 sq. ft. of new construction. See Appendix A, Table A-2, p. 195 for a discussion that compares the impacts of full buildout of the Yerby Plan to full buildout of the revised Executive Park Plan (with amendment).



## II. Summary

Alternative B would introduce hotel, meeting and retail uses on the site; no residential uses would be included. The project would develop about three times more floor area than would be developed in Alternative B.

By excluding residential uses, this alternative would conform to the commercial-use designation in the South Bayshore Plan of the Comprehensive Plan. Visually, Alternative B would differ from the project primarily by construction of three 230-ft.-high office towers on the northwestern portion of the site. In comparison to the project conditions, average summer afternoon northwesterly winds would be reduced 10 to 20% at the Candlestick Point State Recreation Area; southwesterly winds at Candlestick Park would be slightly increased. With this alternative, there would be about 2,100 fewer jobs created than with the project. Compared to project conditions, there would be a 55% reduction in the peak-hour vte and a 75% reduction in peak-hour transit trips. Air quality, noise and energy impacts associated with Alternative B would be substantially less than those of the project. There would be less slope cutting of the project area; excavation and grading would remain about the same as for the proposed project.

Alternative C: Mixed-Use Medium Density Alternative. Alternative C would consist of 750,000 sq. ft. of office space, 5,000 sq. ft. of retail space and 96,000 sq. ft. of residential space, totaling 851,000 sq. ft. of new construction. No development above the existing 100-ft. elevation line would occur. Land uses would be similar to those of the proposed project. No height or bulk district reclassification would be required for the eastern portion of the site, as would be required for the project. Visually, site buildings would appear less dense than with the project. Average summer afternoon west winds north of the housing complex and at Candlestick Park Stadium would increase about 75% and 35%, respectively, compared to those with the project. West winds in Area 3 would decrease about 30% compared with the project. Winds in Little Hollywood and along Alana and Harney Ways would be similar to those with the project. Compared to project conditions, there would be a 32% reduction in peak-hour vte and a 33% reduction in peak-hour transit trips. There would be no slope cuts, excavation or grading above 100 ft.

Alternative D: Maximum Residential Development. This alternative would develop the entire project site into housing (with the exception of OB 1 - OB 4), including the use of the 230-foot maximum height limit on the western portion of the site. Alternative D would provide a total of 1,305 residential units and 5,000 sq. ft. of retail space. Under this alternative there would be a less varied mix of uses than those in the proposed project.

Alternative D would not conform to the commercial-use designation of the site in the amended South Bayshore Plan. Less visual alteration of the upper slopes of Bayview Hill would occur than with the project. Winds would be similar to those predicted for the project. Employment opportunities would be substantially reduced, as almost all development would be residential. There would be an 82% reduction in vte and a 9% increase in peak-hour transit ridership. On-site noise impacts would be greater than with the project because of the greater number of sensitive noise receptors (residences) on the site.

### **III. PROJECT DESCRIPTION**

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#### **A. SPONSOR'S OBJECTIVES/1/**

Campeau Corporation California acquired the Executive Park site from the Yerby Corporation in December 1979. Campeau was not satisfied with the scale, design or the mix of uses in the Yerby Plan, and has therefore proposed an amendment to that Plan. The approved Yerby Development Plan included three high-rise office towers, and restaurant, retail and hotel/convention uses; however, Campeau judged that the Yerby Plan did not provide a balanced or well-integrated mix of uses, which Campeau views as essential to the site's development. The amendment, which is the subject of this EIR, would eliminate the high-rise towers, retain office, hotel, retail, restaurant and hotel/meeting uses, and would introduce a new use, housing. The sponsor's objectives are to:

- provide office space outside the San Francisco Central Business District with retail and hotel/meeting support facilities;
- attract new businesses to San Francisco and retain those that might consider leaving the City for a less expensive suburban location;
- provide residences near sources of employment with retail support;
- create a balanced urban center where commercial and retail space are integrated with a plaza, promenades, open space and housing, which encourage 24-hour activity at the site;
- improve the quality of design of the previous Yerby Plan to be reflective of the site's potential image as the gateway to San Francisco; and
- integrate urban design and architectural concepts which contour the buildings into the hillside and preserve Bayview Hill as a dominant feature of the site.

To achieve the design objectives, the sponsor has retained the architectural firm of Hellmuth, Obata, and Kassabaum (HOK), San Francisco.

#### **B. PROJECT AREA LOCATION**

The project area is situated near the southeastern boundary of the City and County of San Francisco (see Figure 1, p. 20). The 50-acre project area is Lot 87 in Assessor's Block 4991.







## EXECUTIVE PARK DEVELOPMENT PLAN

### LEGEND



EXECUTIVE PARK SITE

FIGURE 1: PROJECT LOCATION

SOURCE: ENVIRONMENTAL SCIENCE ASSOCIATES, INC.



# EXECUTIVE PARK DEVELOPMENT PLAN

## LEGEND

□ EXECUTIVE PARK SITE

FIGURE 1: PROJECT LOCATION

SOURCE: ENVIRONMENTAL SCIENCE ASSOCIATES, INC.



It is bounded on the west by the two-acre site of the proposed OB 4 and US 101 (the Bayshore Freeway); on the south by the existing 19-acre Executive Park complex (Lots 61, 65, 75, 85 and 86); on the east by City property on Jamestown Ave.; and on the north by Bayview Park, the uppermost portion of Bayview Hill. Executive Park Blvd. North and Harney Way form the southern boundary of the site. Via a tunnel under US 101, Blanken Ave. connects to areas west of US 101, including the Little Hollywood neighborhood. The Bayview Hunters Point residential neighborhood is located north of the site beyond Bayview Hill. US 101 provides direct access from the site to downtown San Francisco, located about six miles to the north, and to San Francisco International Airport, located about six miles to the south. Candlestick Park Stadium is east of the project area. The Bay and the Candlestick Point State Recreation Area are to the south.

#### **C. PROJECT CHARACTERISTICS**

The project would contain a total of 1.85 million gross sq. ft. of office, housing, hotel/meeting, retail, and and restaurant space, and parking space for about 4,300 vehicles./2/ Development would consist of the following gross floor area:

- 1.15 million sq. ft. of office space;
- 425,000 sq. ft. of residential space (500 units);
- 234,000 sq. ft. of hotel (350 rooms) and meeting space; and
- 45,000 sq. ft. of retail/restaurant space.

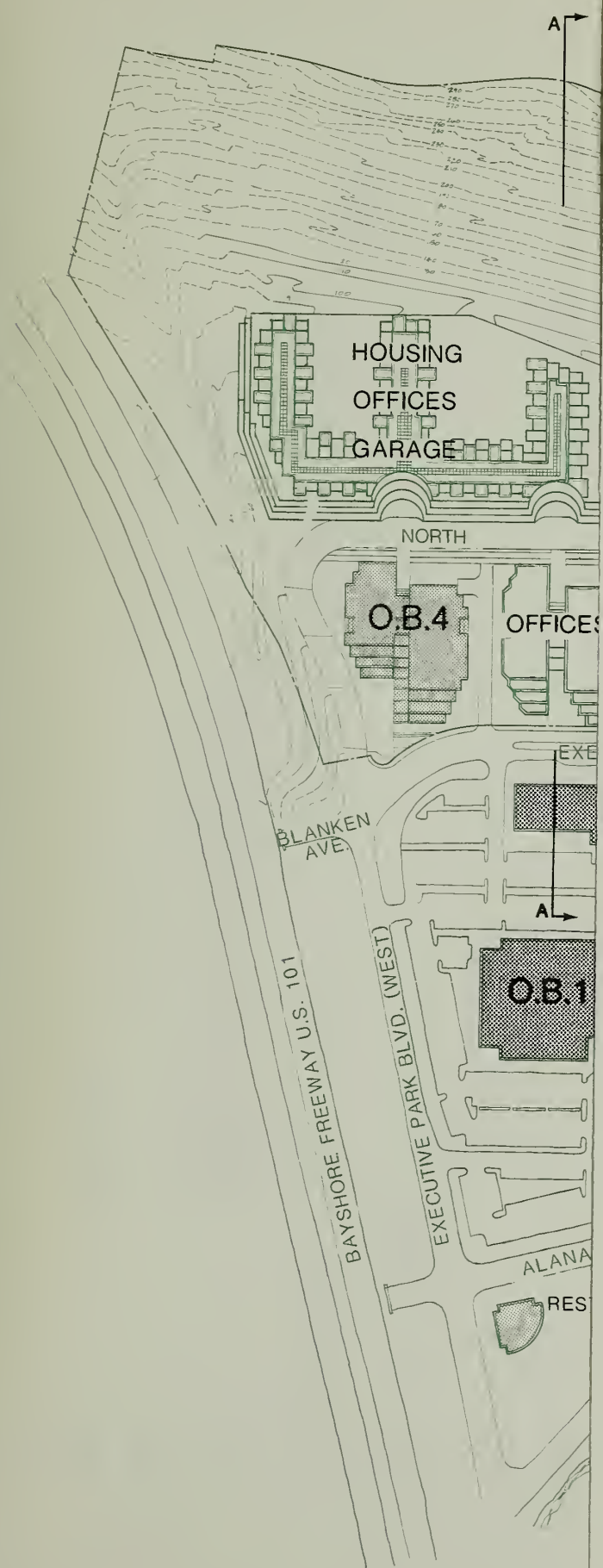
The proposed 1.15 million sq. ft. of office space does not include 494,000 sq. ft. of space in previously approved office buildings (OB 1 - OB 4); the 45,000 sq. ft. of retail / restaurant space does not include the 5,000-sq.-ft. restaurant on Alana Way or 1,200 sq. ft. of restaurant space in the proposed hotel. See Table 1, p. 27 for a summary of floor area by use and phasing.

Buildings would be clustered in three areas (Areas 1-3). Each cluster would be situated on a series of stepped, landscaped benches along the toe and lower slopes of Bayview Hill (see Figures 2 and 3, pp. 22-23).

Area 1 is situated on the southern portion of the project area, north of Executive Park Blvd. (see Figures 2, p. 22 and 4, p. 24). Area 1 would contain a cluster of office buildings, totaling 850,000 gross sq. ft. of floor area. (OB 4, which has been approved, but not yet constructed, would be located immediately west of Area 1.) A Town Center







## EXECUTIVE PARK DEVELOPMENT PLAN

### LEGEND

#### PROPOSED PROJECT

OFFICE (SQ. FT.)*	1,150,000
RETAIL/RESTAURANT (SQ. FT.)	45,000
HOTEL/MEETING (SQ. FT.) ROOMS (350)	234,000
RESIDENTIAL (SQ. FT.) UNITS (500)	425,000
<b>TOTAL GROSS FLOOR AREA (SQ. FT.)*</b>	<b>1,854,000</b>

#### EXISTING (SQ. FT.)

210,000

O.B.1 O.B.2

#### APPROVED (SQ. FT.)

289,000

O.B.3 O.B.4 AND  
ALANA WAY RESTAURANT

#### TOTAL FLOOR AREA OF DEVELOPMENT PLAN (SQ. FT.)

**2,353,000**

\* TOTALS DO NOT INCLUDE OB 1-4



EXISTING



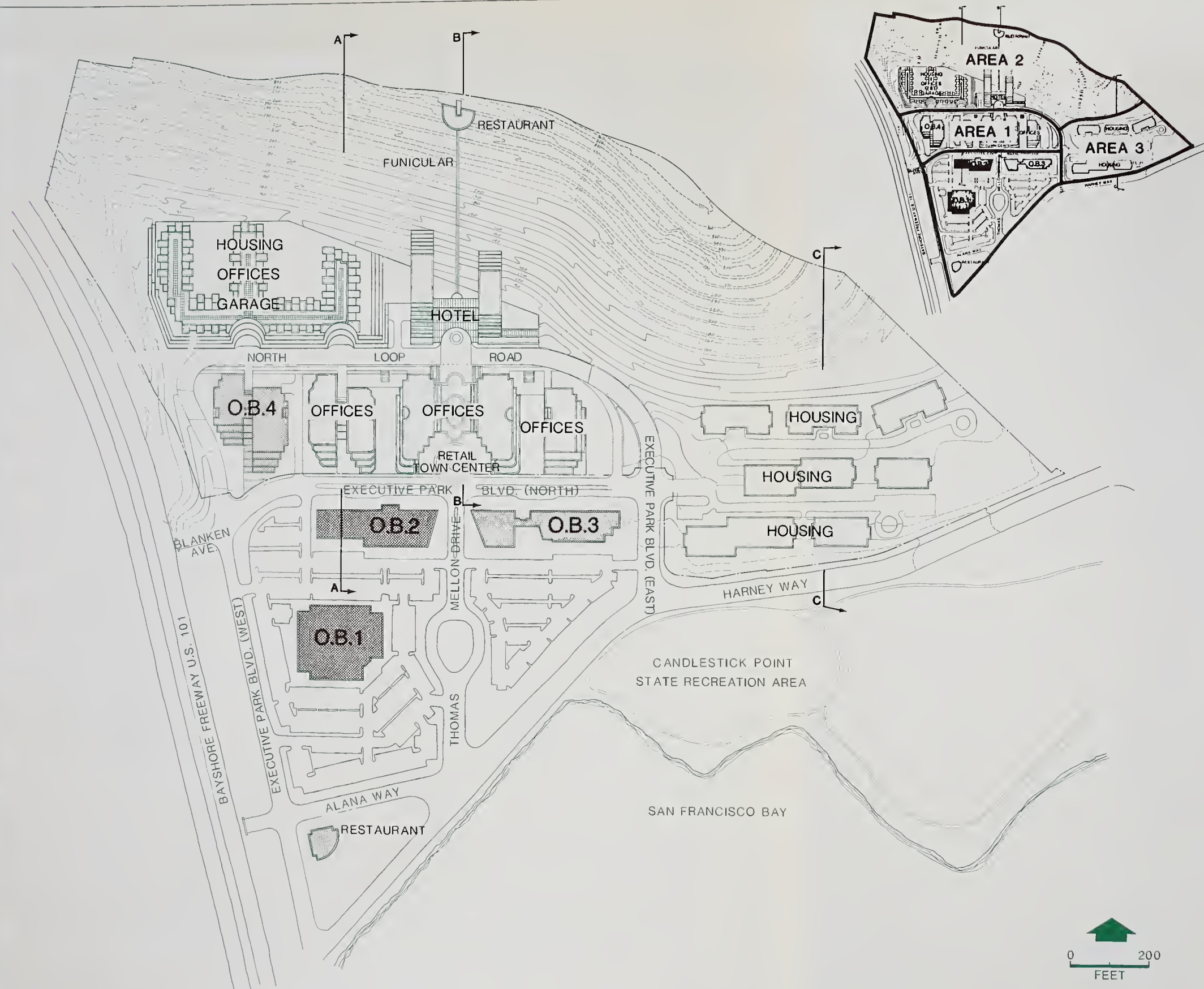
APPROVED FOR CONSTRUCTION

The placement of structures is conceptual and does not indicate exact locations of proposed buildings.

### FIGURE 2: SITE PLAN

#### SOURCE

HELLMUTH, OBATA, & KASSABAUM



## EXECUTIVE PARK DEVELOPMENT PLAN

### LEGEND

#### PROPOSED PROJECT

OFFICE (SO. FT.)*	1,150,000
RETAIL/RESTAURANT (SO. FT.)	45,000
HOTEL/MEETING (SO. FT.) ROOMS (350)	234,000
RESIDENTIAL (SO. FT.) UNITS (500)	425,000
<b>TOTAL GROSS FLOOR AREA (SO. FT.)*</b>	<b>1,854,000</b>

EXISTING (SO. FT.) 210,000



OB.1 OB.2

APPROVED (SO. FT.) 289,000

OB.3 OB.4 AND  
ALANA WAY RESTAURANT

**TOTAL FLOOR AREA OF DEVELOPMENT  
PLAN (SO. FT.) 2,353,000**

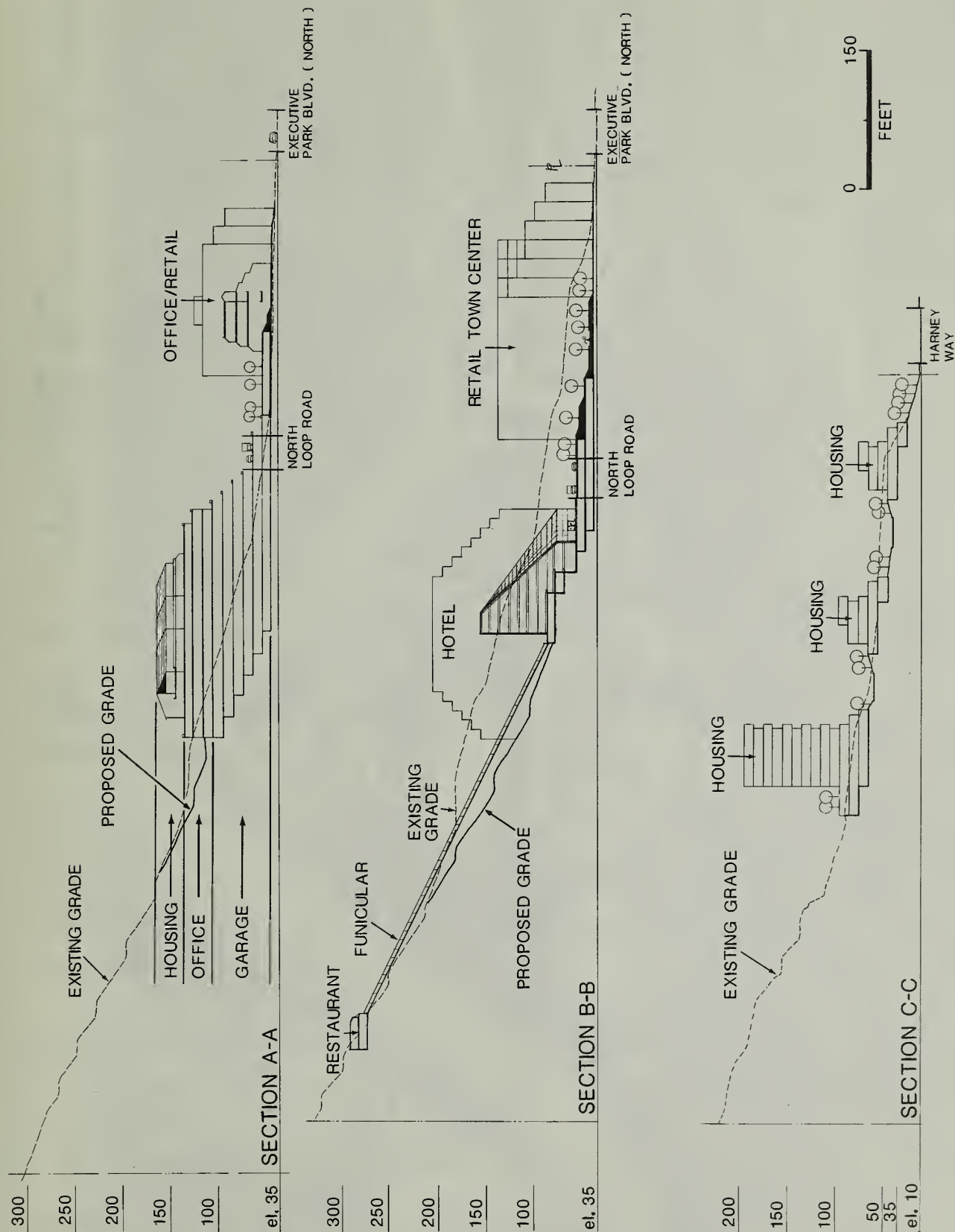
\* TOTALS DO NOT INCLUDE OB 1-4

-  EXISTING
-  APPROVED FOR CONSTRUCTION

The placement of structures is conceptual and does not indicate exact locations of proposed buildings

FIGURE 2: SITE PLAN

SOURCE  
HELLMUTH, OBATA, & KASSABAUM



See Figure 2 for the location of cross sections.

SOURCE

HELLMUTH, OBATA, & KASSABAUM

FIGURE 3: SITE SECTIONS





NOTE: The placement, height, and design of structures are conceptual and subject to ongoing review by the Department of City Planning.

SOURCE

PETER XIQUES PHOTOGRAPHY; AND  
ENVIRONMENTAL SCIENCE ASSOCIATES, INC.

FIGURE 4: PHOTOGRAPH OF DEVELOPMENT PLAN MODEL  
(AERIAL VIEW)



would be located approximately in the center of the array of project office buildings. The Town Center would be an outdoor plaza flanked on both sides by a total of 40,000 sq. ft. of retail/restaurant space on the ground-floor and lower floors of office buildings surrounding the plaza. Building heights in Area 1 would range from 65 to 165 ft., with the lower structures situated to the west near US 101. Parking for Area 1 would be provided in Area 2 (see below).

Area 2 is on the upper northern and central portion of the project area (see Figures 2, p. 22 and 4, p. 24). Area 1 and Area 2 would be separated by North Loop Road. An office/housing/parking complex and a hotel/meeting center are proposed for Area 2. Approximately 85,000 sq. ft. (100 units) of housing would be developed on top of 300,000 gross sq. ft. of office space. The housing would be designed as garden townhouse units on top of an office building base (similar to those at Golden Gateway Commons in downtown San Francisco). The height of the office/housing/parking structure in Area 2 would be about 120 ft. Below the office/housing component would be a parking structure with 3,360 spaces; of this amount, about 3,210 spaces would be designated for office use in Area 1 and Area 2, and about 150 spaces for residential use. An estimated 815 of the 3,210 spaces would replace on-grade parking for OB 4 (400 spaces) and the first phase of project area development (415 spaces). The 234,000-sq.-ft. hotel would contain about 350 hotel rooms, meeting rooms, a 1,200-sq.-ft. restaurant, a health spa and catering/food preparation facilities.

Immediately north of the hotel, a funicular (tramway) would provide access to a 5,000-sq.-ft. hillside restaurant. One parking space per hotel room (350 spaces) and about ten spaces for the hillside restaurant would be provided underneath the hotel, a total of 360 spaces. The height of the hotel structure would be a maximum of about 160 ft. The hillside restaurant would be about 20 ft. in height.

Area 3, located on the far eastern portion of the project area, would be developed into housing. About 340,000 gross sq. ft. (400 units) of housing would be developed with parking spaces for 600 vehicles provided underneath. Housing structures would range in height from 40 ft. to 120 ft.

#### DESIGN CONCEPT/3/

The project area layout is intended by the project architect to preserve the character of Bayview Hill. Buildings in Area 2 and Area 3 would be stepped into the hillside so that the

topography and views of Bayview Hill would not be disturbed above the 230 ft. elevation; the hill reaches an elevation of about 350 ft. within the project area. Most buildings would be oriented with their long exposures to the north/south, affording views of the upper slope of Bayview Hill to the north and of the Bay to the south (see Figure 2, p. 22).

#### SITE ACCESS AND CIRCULATION/3/

The principal access to the project area would be provided by US 101. From the south, vehicles would exit US 101 at the Harney Way off-ramp. From the north, access from US 101 would be provided at the Beatty Ave. off-ramp (see Figure 9, p. 47). Vehicles approaching the project area from the west via Bayshore Blvd. could use Beatty Ave. or Blanken Ave. Vehicles coming from the Hunters Point Bayview area via Jamestown Ave. Extension would use Harney Way. Alana Way, located south of the project area, passes underneath US 101 and connects with Beatty Ave. on the west and with Harney Way on the east.

On-site vehicular travel would flow in an east/west direction; pedestrian circulation would trend north/south. A central pedestrian sidewalk would extend north along Thomas Mellon Dr., which is the primary north/south pedestrian access of the existing Executive Park complex. Thomas Mellon Dr. would terminate at the proposed Town Center plaza (see Figure 2, p. 22). From the Town Center, there would be a series of plazas stepping up the hillside which would terminate at the entrance of the hotel lobby. From the hotel, a funicular would provide access to the hillside restaurant.

#### PROJECT SCHEDULE AND PHASING/3/

OB 3 and OB 4 will be completed in 1984 and 1985. The proposed project would be constructed in eight phases over a ten-year buildout period beginning in early 1986. During Phases One - Four (1986-1990), Area 1 would be developed into approximately 850,000 sq. ft. of office space and about 40,000 sq. ft. of retail space (see Table 1, p. 27).

Phases Five - Seven (1992-1994) would be developed in Area 2. Phases Five and Six would construct 300,000 gross sq. ft. of office space. Phase Seven would include 234,000 gross sq. ft. of hotel/meeting space, and a 5,000-sq.-ft. hillside restaurant.

TABLE 1: EXECUTIVE PARK DEVELOPMENT PLAN - PROJECT PHASING (1981 - 1995)

## COMPLETED OR APPROVED (1981 - 1985)

	<u>Uses - gross sq. ft.</u>			<u>Parking***</u>	
	<u>Year of Completion</u>	<u>Office</u>	<u>Retail/ Restaurant**</u>	<u>On Grade</u>	<u>In Structures</u>
OB 1, OB 2	1981-82	210,000		552	
OB 3	1984	110,000		245	
Subtotals		320,000		797	
OB4	1985	174,000	5,000	401	
Subtotals		494,000	5,000	1198/(401)+	

Total of Completed or  
Approved: 499,000 sq. ft.  
1,198 parking spaces

## PROPOSED PROJECT (DEVELOPMENT PLAN AMENDMENT) (1986 - 1995)

<u>Phase by Area++</u>	<u>Uses - gross sq. ft. (rooms or units)</u>					<u>Parking***</u>	
	<u>Year of Completion*</u>	<u>Office</u>	<u>Retail/ Restaurant</u>	<u>Hotel/ Meeting</u>	<u>Housing</u>	<u>On Grade</u>	<u>In Structures</u>
<u>Area 1</u>							
Phase 1	1986	175,000					(415)+
Phase 2	1987	200,000					475/1291
Phase 3	1989	200,000	20,000				515
Phase 4	1990	275,000	20,000				693
<u>Area 2</u>							
Phase 5	1992	150,000					356
Phase 6	1993	150,000					506+++
Phase 7	1994		5,000	234,000 (350 rooms)			360++++
<u>Areas 2 and 3</u>							
Phase 8	1995				425,000 (500 units)		600+++
Total of Proposed Project 1,854,000		1,150,000	45,000	234,000	425,000	—	4,321
FULL BUILDOUT of Executive Park Development Plan: 2,353,000 sq. ft. 5,118 parking spaces		1,644,000	50,000	234,000	425,000	797	4,321

\* Based on anticipated leasing and market absorption rate of 150,000 sq. ft. of office space per year.

\*\* Does not include 2,000 sq. ft. of restaurant space in OB 1 and OB 2, or the 1,200 sq. ft. of restaurant space contained in the Hotel / Meeting Space.

\*\*\* Office parking is based on 2.5 spaces per 1,000 sq. ft. of leasable floor area (95% of gross).

+ Temporary on-grade parking would be provided for OB 4 (401 spaces) and Phase 1 (415 spaces); see total parking indicated in Phase 2 (1987). These spaces would be replaced in the Area 2 Office / Residential / Parking structure. Replacement parking for OB 4 (401 spaces) and Phase 1 (415 spaces), and new parking for Phases 2-4 would be built simultaneously in Area 2, as each building comes on line. The total of 1291 spaces in Plan 2 is the sum of 401 + 415 + 475.

++ See Figure 2, p. 22 for approximate boundaries of Areas 1, 2, and 3.

+++ Residential parking is based on 1.5 spaces per unit. Approximately 150 parking spaces (for 100 housing units) would be provided during Phase 6 office construction. During Phase 8, these 100 housing units would be constructed on top of the office space developed during Phases 6 and 7.

++++ Hotel parking is based on one space per room; the remaining ten spaces would be assigned to the hillside restaurant.



### III. Project Description

Starting in 1995, Phase Eight would construct 500 housing units, totaling 425,000 gross sq. ft. One hundred of the housing units would be constructed above the offices developed in Area 2 during Phases Five and Six. The remaining 400 units would be constructed in Area 3 on the eastern portion of the project area.

See Table 1, p. 27 for the phasing of the parking spaces.

#### LANDSCAPING/3/

Landscaping would be planted concurrently with building phases. Hillside planting and hydroseeding programs have begun during development of OB 1 and OB 2, and would be completed during construction of the proposed project. During development of the project, the interiors and perimeters of building clusters and the Town Center plaza would be landscaped.

This hill planting would be a combination of trees and shrubs, cascading plants and ground covers which would be predominately California native plant materials. A variety of plants would be used to create a natural appearance, and provide a selection of plants that would be best suited to varying soil types found on the hillside. A hillside trail system, accessible to the public, would be installed to link the Candlestick Point State Recreation Area to the Executive Park site (see Figure 4, p. 24). The trail also would allow people to walk from Executive Park Blvd. up the hillside along the benches to the hillside restaurant.

#### D. PROJECT COSTS (1983 Dollars)/4/

All project construction costs, selling prices and rental rates are estimated in 1983 dollars. Project development costs would total about \$270 million; this amount includes approximately \$117 million for basic construction, \$25 million for interior finishing, \$32 million for land costs and \$96 million for interim financing, design, and professional services. On the assumption of current market conditions, office space is expected to rent for about \$24 per sq. ft. and retail space for about \$18 per sq. ft. annually. Selling prices of the residential units would be approximately \$85,000 for studios, \$110,000 for one-bedroom units and \$125,000 for two-bedroom units. Hotel room rates would average \$60 per night. These costs and prices are expected to rise with inflation throughout the ten-year buildout of the project.



#### E. APPROVAL REQUIREMENTS

Following a public hearing on this Draft EIR before the City Planning Commission, responses to all written and oral comments will be prepared. Revisions to the Draft EIR (Summary of Comments and Responses) will be reviewed by the City Planning Commission and the Final EIR certified as complete.

The project area is currently in the 230-G and 40-X Height and Bulk districts (See Figure 7, p. 36). The sponsor will request a height and bulk district reclassification of 165-I for all portions of the project area outside of the 230-G district. If approved by the City Planning Commission, the height and bulk reclassification ordinance would be presented to the Board of Supervisors for action and, if approved, would then go to the Mayor for signature.

The project would require a text and map revision to the South Bayshore Plan of the San Francisco Comprehensive Plan for development of housing on the site. The City Planning Commission could require discretionary review of individual building designs and site layout before building permits would be issued (Resolution No. 7547). A longitudinal encroachment permit would be required from the California Department of Transportation (CalTrans) for grading on the western portion of the site which could extend onto CalTrans' US 101 right-of-way. Subdivision approval by the Department of Public Works would be required prior to subdivision of lots and prior to sale of condominium units. All internal streets would be dedicated to the City and County of San Francisco. The hillside trail system would be privately owned, but accessible to the public.

#### NOTES - Project Description

/1/ Jay Mancini, Director of Commercial Development, Campeau Corporation California, interviews, January 26 and May 5, 1983.

/2/ Of the 4,300 structure parking spaces, about 3,900 spaces would be provided for the proposed project and the remaining 400 spaces would be provided for OB 4.

/3/ Andrew Laguana, Project Architect, Hellmuth, Obata and Kassabaum Architects, letter, September 3, 1982.

/4/ Jay Mancini, Director of Commercial Development, Campeau Corporation California, letter, September 3, 1982.

#### IV. ENVIRONMENTAL SETTING

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##### A. LAND USE AND ZONING

##### LAND USE

###### Existing Land Uses On-site

The project area is located on the southern flank of Bayview Hill. It is currently vacant open space. Much of the open-space area has been graded at various times, resulting in dirt roads, steep terraces (inaccessible to vehicles), and removal of previous vegetation. Two trailers used as temporary offices by Williams and Burrows General Contractors, Inc. are located near the center of the project area. They are currently vacant and will not be used until construction begins on OB 3.

The existing Executive Park office complex, consisting of OB 1 and OB 2, is located south of the project area (see Figure 2, p. 22). OB 1 and OB 2 contain a total of 210,000 sq. ft. of floor area and were constructed in 1981 and 1982, respectively; these are three- and four-story buildings, respectively. As of June 1983, OB 1 was fully occupied and OB 2 was 45% occupied./1/ A 550-space surface-level parking lot and landscaped areas surround OB 1 and OB 2. The central access to these buildings is Thomas Mellon Dr., which is landscaped and extends from Harney Way on the south to Executive Park Blvd. North on the north. Executive Park Blvd. East and West are partially completed and landscaped.

###### Planned Uses On-site

In addition to the proposed project, two office buildings and a restaurant are presently planned for the Executive Park site. These were approved for construction in 1981 and 1982 as part of the 1978 Yerby Development Plan. OB 3 is approved for construction, and a building pad has been completed. OB 3 will be located east of OB 2 and Thomas Mellon Dr., in the south central portion of the Executive Park site (see Figure 2, p. 22). OB 4 and a restaurant are being designed; building permits have not yet been issued. OB 4 would be

located above Executive Park Blvd. North, between the project area and US 101. The restaurant would be located at the southeast corner of the intersection of Executive Park Blvd. West and Alana Way.

##### Existing Uses in the Site Vicinity

Uses surrounding the project area include open space, recreational, industrial, commercial areas and public roadways. Bayview Park adjoins the site on the north. This is a public, unimproved open space area occupying the summit and northern slopes of Bayview Hill. The park contains the KYA radio tower and includes trails and unimproved private roads (see Figure 5, p. 32. KYA radio has been granted an easement by the San Francisco Recreation and Park Department./2/

Candlestick Park Stadium, grounds and parking lots are located directly east of the project area./3/ East, south and north of Candlestick Park Stadium is a portion of the proposed Candlestick Point State Recreation area. The Sequoia Audubon Society operates a bird refuge along the shoreline southeast of the project area.

The residential neighborhoods of Bayview Hunters Point, Little Hollywood and Visitacion Valley are adjacent to the project area (see Figure 5, p. 32). According to the 1980 Census, total population in these neighborhoods is about 34,100, with 1,638 persons residing in Little Hollywood, 12,490 in Visitacion Valley, and 20,000 in Bayview Hunters Point./4/ Single-family units predominate in these neighborhoods; owner-occupied housing averages 50% of the total units in the Bayview Hunters Point and Visitacion Valley and about 65% in Little Hollywood. The mean population per household in 1980 was 3.20 in Little Hollywood, 3.37 in Visitacion Valley, and 3.01 in Bayview Hunters Point. These are higher than the citywide mean household size of 2.27 as a whole. Approximately 73% of the residents of Bayview Hunters Point are black, as compared to about 35% of the residents in Little Hollywood and 35% Visitacion Valley. Asians and Pacific Islanders comprise about 30% of the population in Little Hollywood and Visitacion Valley. The median household income in Little Hollywood is \$23,281; in Visitacion Valley, \$18,536, and in Bayview Hunters Point, \$16,000.

A commercial tourist motel and restaurant, the Costa Brava, and industrial uses are located west of US 101. The waste materials transfer station of Sunset Scavenger /





EXECUTIVE PARK  
DEVELOPMENT PLAN



FIGURE 5: LAND USES IN  
PROJECT VICINITY

SOURCE: ENVIRONMENTAL SCIENCE ASSOCIATES, INC.

EXECUTIVE PARK  
DEVELOPMENT PLAN



FIGURE 5: LAND USES IN  
PROJECT VICINITY

SOURCE: ENVIRONMENTAL SCIENCE ASSOCIATES, INC.



MACOR, Inc. is situated about 800 ft. southwest of the site, across US 101. Beyond that facility are located switching yards of the Southern Pacific (Railroad) Transportation Company and other industrial land. Some of the industrial land is currently vacant, such as that of the Solid Waste Recycling Corporation located south of Beatty Ave. at US 101.

##### Planned Uses in the Site Vicinity

The California Department of Parks and Recreation intends to develop 170 acres of Bay shoreline into the Candlestick Point State Recreation Area. This 170-acre recreation area would extend from the south basin of Hunters Point to the south end of Brisbane Aquatic Park at Sierra Point, which is approximately 2.5 miles south of the San Francisco City/County line. Undeveloped portions of the proposed Candlestick Point State Recreation Area are used for overflow parking during events at Candlestick Park Stadium. The first phase of the Recreation Area is complete; it consists of fishing areas, picnic tables and barbecue pits.

The San Francisco Bay Conservation and Development Commission (BCDC) retains permit jurisdiction over land lying within 100 feet of the shoreline. The project area lies outside of the 100-foot boundary, and therefore, falls under BCDC advisory jurisdiction only. The BCDC Plan recommends most of the Executive Park site as a waterfront park./5/ This recommended waterfront park extends from Candlestick Point to Sierra Point, and from Oyster Point to Point San Bruno.

The primary industrial development planned until recently in the vicinity would have been located to the southwest of the site in Brisbane. The Sanitary Fill Company had proposed to construct a waste-to-energy Resource Recovery Facility (RRF) in Brisbane, about 800 ft. southwest of the Executive Park site./6/ That proposal was turned down by the electorate of Brisbane in November, 1982.

In the Brisbane Waterfront Plan, a view restaurant is proposed, east of US 101 near the northbound on-ramp at Harney Way./7/ Within Brisbane, Southern Pacific Development Company proposes to construct a warehousing and distribution center west of Tunnel and Esta Aves. within the next ten years./8/ Southern Pacific also proposes



to develop the 51-acre Bayshore Office Park between US 101 and Bayshore Blvd. south of the San Francisco City/County line, and the 220-acre Baylands Redevelopment Area bounded by Tunnel Ave. on the west, US 101 on the east, Beatty Ave. to the north, and the Brisbane lagoon to the south. At full buildout these two proposals would total up to five million sq. ft of office, commercial, and, possibly, hotel development./8/ The Brisbane Waterfront Redevelopment Area geographically overlaps the Bayshore Office Park and the Baylands Redevelopment Area.

#### ZONING

The Executive Park site (including the project area) is located in the C-2 (Community Business) Planning Code Use district (see Figure 6, p. 35). The basic allowable Floor Area Ratio (FAR) in the C-2 District is 3.6:1; this FAR would allow development of floor area of up to 7.8 million sq. ft. within the 2.2 million-sq. ft. (50 acres) project area. Office, residential, hotel, and retail uses are permitted as principal uses in the C-2 district. For the project area, the C-2 district permits a maximum density ratio of one dwelling unit per 800 sq. ft. of lot area./9,10/

The project area is in the 40-X Height and Bulk district, except for a northwestern L-shaped portion which is in the 230-G district (see Figure 7, p. 36). Within the 40-X district, the maximum allowable height is 40 ft.; no bulk limits apply. The maximum allowable height in the 230-G district is 230-ft; above a building height of 80 ft. the maximum permitted facade width is 170 ft., and the maximum diagonal dimension length is 200 ft.

The site is within the Candlestick Park Special Sign District (Section 608.4 of the Planning Code). In this district, no general advertising sign, or other sign exceeding 200 sq. ft. in area is permitted.

In the C-2 district, parking is permitted at a minimum rate of one space per 500 sq. ft. of office space; one space per residential dwelling unit; one space for each 16 hotel rooms; one space for each 500 sq. ft. of retail space up to 20,000 sq. ft. (over 20,000 sq. ft., one space per 250 sq. ft. of retail space is required); and one space for each 200 sq. ft. of restaurant space that exceeds 5,000 sq. ft.



# LEGEND

- P - Public use districts
- RH-1 - Residential, house districts, one-family
- RH-2 - Residential, house districts, two-family
- RM-1 - Residential, mixed districts, low density
- C-1 - Neighborhood shopping districts
- C-2 - Community business districts
- M-1 - Light industrial districts
- M-2 - Heavy industrial districts
- C-M - Heavy commercial districts



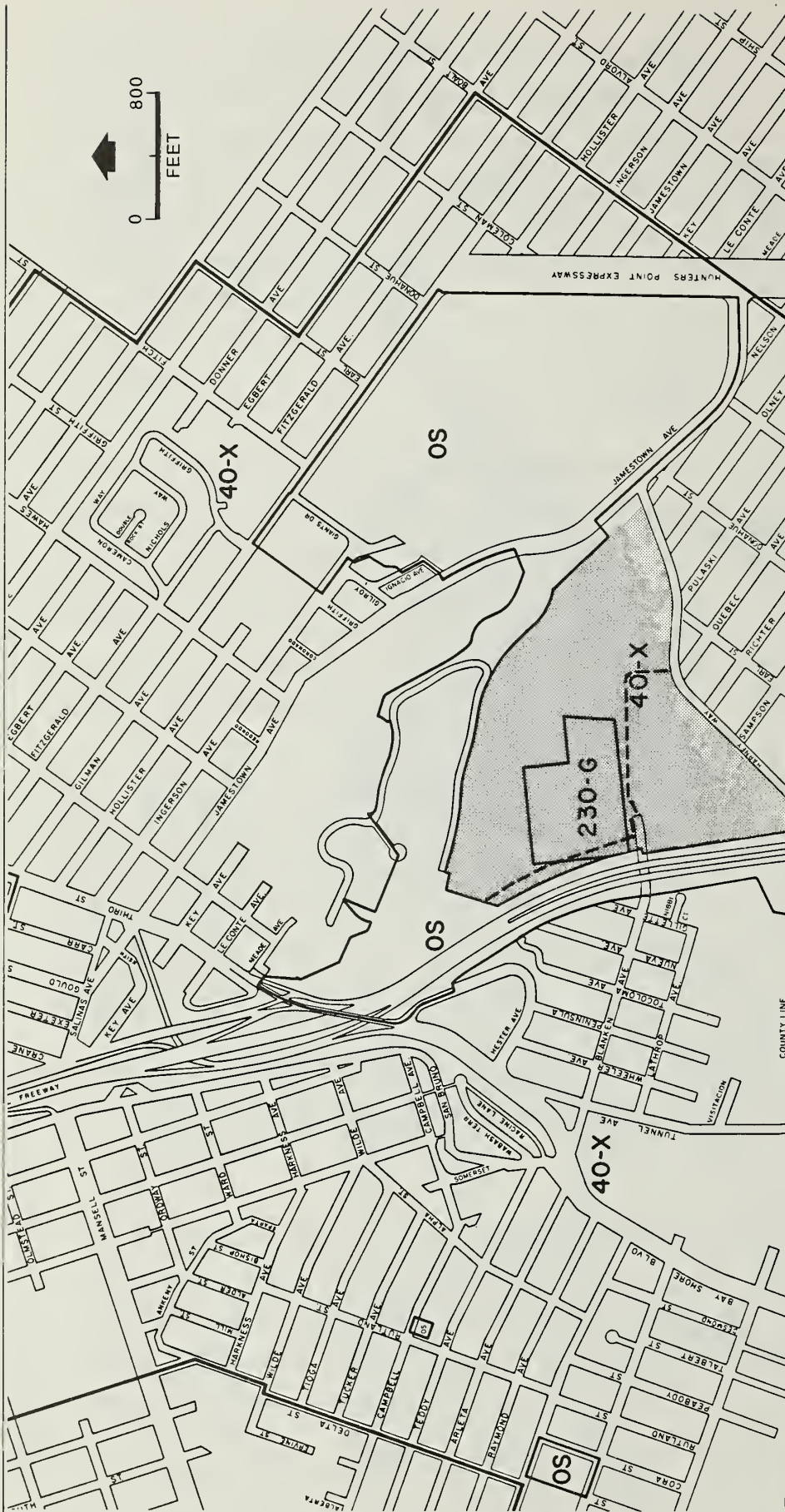
-  Executive Park Site
-  Project Area Boundary


FIGURE 6: PLANNING CODE USE DISTRICTS

# SOURCE

SAN FRANCISCO CITY PLANNING CODE





 Executive Park Site  
 --- Project Area Boundary

HEIGHT and BULK DISTRICTS	HEIGHT LIMIT	HEIGHT ABOVE WHICH MAXIMUM DIMENSIONS APPLY	MAXIMUM BUILDING LENGTH	MAXIMUM DIAGONAL DIMENSION
230-G	230'	80'	170'	200'
40-X	40'	Bulk limits not applicable		
OS		Conformity with objectives, principles and policies of the Master Plan		

SOURCE

SAN FRANCISCO CITY PLANNING CODE

FIGURE 7: PLANNING CODE HEIGHT AND BULK DISTRICTS



NOTES - Land Use and Zoning

/1/ James Smith, Property Manager, San Francisco Executive Park, telephone conversation, March 31, 1983.

/2/ James Cooney, Planner, San Francisco Recreation and Park Department, telephone conversation, March 30, 1983.

/3/ Since the fall of 1982, the City and County of San Francisco has considered the relocation of Candlestick Park Stadium to a site in the South of Market Area. If such a plan were to be implemented, the future use of the existing stadium would be uncertain.

/4/ Bayview Hunters Point comprises Census Tract Nos. 230, 231, 232, 233, 234, 606, 608 and 609; Little Hollywood and the Executive Park site are located in Census Tract No. 610; Visitation Valley consists of Census Tract No. 264. The boundaries of these tracts are not identical to the neighborhood boundaries, but are approximations of the neighborhood locations.

/5/ San Francisco Bay Conservation and Development Commission, January 1969 and amended July 1979, San Francisco Bay Plan, Plan Map 10, San Francisco and Brisbane.

/6/ City of Brisbane Resource Conversion Center, Final Environmental Impact Report, certified November 1980, State Clearinghouse No. SCH 7905141; Resource Recovery Facility, Final Environmental Impact Report, certified July 1982, State Clearinghouse No. SCH 81112410.

/7/ City of Brisbane, February 1978, City of Brisbane Waterfront Plan and Environmental Impact Report, adopted August 1978.

/8/ Southern Pacific Development Company, et al., July 1982, Proposed Specific Plan for Bayshore Office Park and Baylands Development Area.

/9/ The permitted floor area is slightly overestimated because the 50-acres of project area include internal roadways that would be publicly dedicated. (Publicly dedicated roads should be subtracted from the project area to determine the maximum allowable FAR.) The exact amount of project area that would be developed into roadways is not known at this time.

/10/ City and County of San Francisco, City Planning Code, 1979, Section 215. Within the C-2 district, dwellings are permitted at a density not exceeding the number of dwelling units per lot area in the nearest R district, but in no case shall the maximum density be less than the maximum density allowed in the RM-1 district (one unit per 800 sq. ft. of lot area). The nearest R district to the project area is RH-1 (one unit per 2,500 sq. ft. minimum lot size). Therefore, the RM-1 density ratio would be applicable to the project area.

## B. VISUAL FEATURES

### VISUAL CHARACTERISTICS

#### Project Area

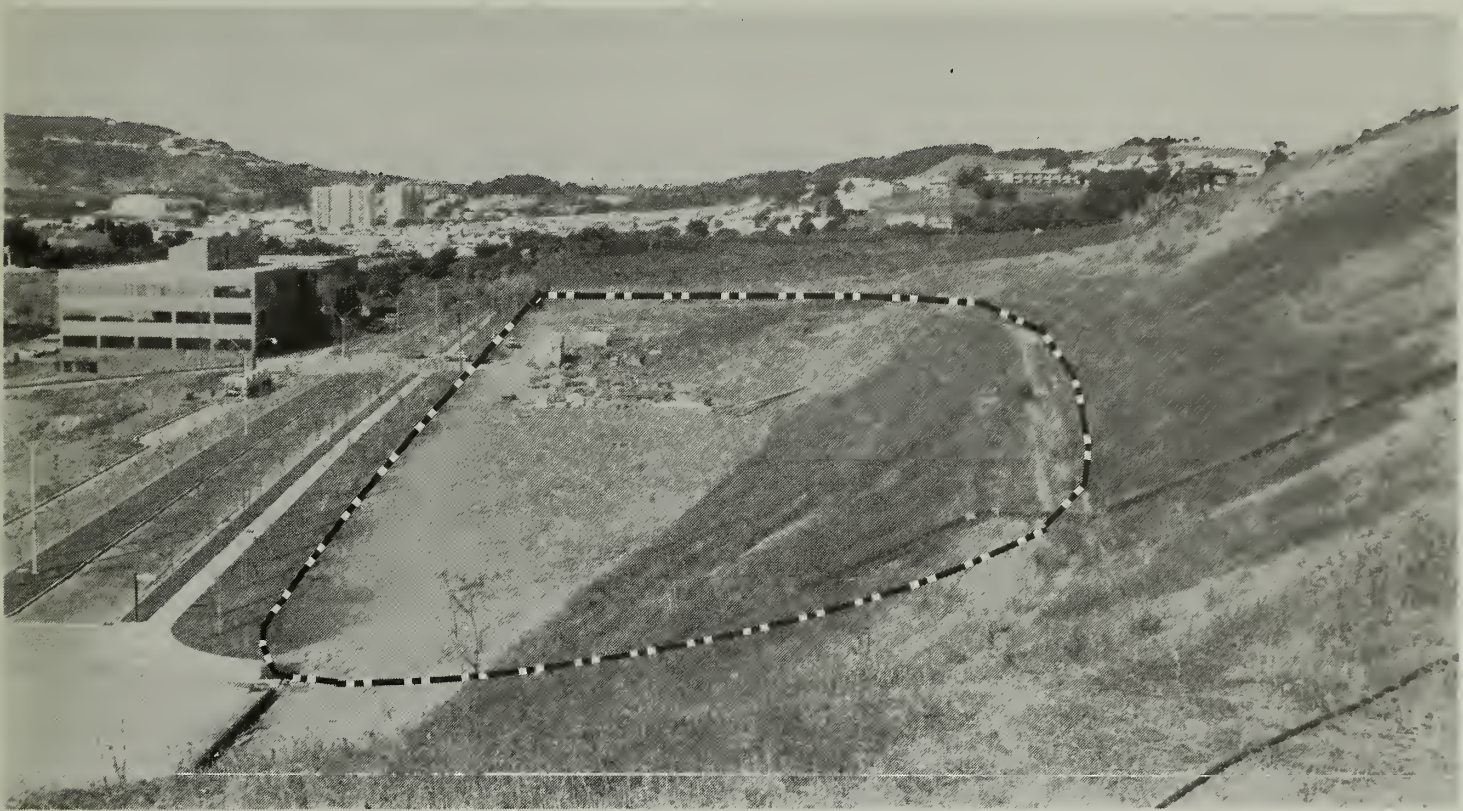
Visual characteristics of the project area are defined by its topography. Few signs of the natural topography remain, as the hillside portions of the project area have been graded and used to provide soil cover for sanitary land fill in the past. The project area has mainly south-facing exposure on the flank of Bayview Hill. Three general areas with common visual characteristics may be described for the project area (see Figure 4, p. 24 for boundaries of the areas).

Area 1 is the "bowl" area at the foot of Bayview Hill between Executive Park Blvd. (North) and the steep slopes of the hillside. Development of the office building cluster is proposed for Area 1. The area has gentle slopes which have been graded extensively and consists of roughly surfaced areas with a weedy grass cover (see Figure 8a, p. 39). The western edge of the bowl area abuts the steep flank of the inclined ramp of US 101. Because of its low-lying position (below about the 50 ft. elevation) on the site, and partly because of adjacent buildings, Area 1 has low visibility from surrounding areas (see Figure 8b, p. 39).

Area 2 is the visually prominent high-lying portion of the site on the upper southern slopes of Bayview Hill (above the 90 ft. elevation). The combined office/housing complex and the hotel/meeting center are planned for Area 2. The visual appearance of Area 2 is varied (see Figure 8c, p. 41). The northernmost area consists of steep slopes cut into a series of benches. The tree and brush cover is in dense clusters near the summit of the hill in the west-central and central portions of the hill. Below this area, toward the western end of the hillside, the terraces are fewer in number and the hillside has less severe grades.

Area 3 is the visually prominent lower slope of the eastern end of Bayview Hill. The eastern housing cluster would be developed on this portion of the site. Area 3 consists of two side benches which rise above Harney Way but are not higher than Candlestick Park Stadium. The two steps are similar to those in Area 2, but are much wider and are





8A: VIEW OF SITE LOOKING WEST FROM AREA 3  
 --- Approximate boundary of Area 1.



8B: VIEW OF THE SITE LOOKING EAST FROM U.S. 101



#### IV. Environmental Setting

flanked by moderate slopes (see Figure 8c, p. 41). The tops of the benches are barren. The lower step is used for overflow parking at Candlestick Park Stadium and the sides have a cover of weedy grasses and low-growing herbaceous plants. Visual elements of Area 3 include steep slopes of red rock cut by flat-topped and steep-walled benches, scattered with trees and shrubs covering 30% of the area (see Figure 8c, p. 41). The upper hillside has been graded into a series of benches cut into the rock. Up to eleven benches have been cut into the eastern end of the slope. The hillside has been disturbed extensively and has an appearance similar to that of a quarry. The steep faces of the steps have a crenelated appearance created by erosion gullies.

##### Existing Executive Park Site

OB 1 and OB 2 are three- and four-story buildings, respectively, of contemporary design and predominantly horizontal architectural lines. OB 1 has a pre-cast concrete and stucco facade with dark glass and OB 2 has a blue-tile/metal-panel facade with reflective glass. These two office buildings are situated on gentle slopes, surrounded by landscaped lawns and parking. The streets are landscaped and lighted. OB 1 and OB 2 are visible from most surrounding areas, except portions of the Little Hollywood neighborhood directly west of US 101, where the freeway and landscaping interrupt the view.

##### VISIBILITY

Most of the project area is highly visible from surrounding areas because of the prominence of Bayview Hill and the steeply sloping topography of the site, which rises from 30 ft. to 395 ft. in elevation. Most of the site is visible from the hillside areas directly west of US 101. From the intersection of Bayshore Blvd. / Blanken Ave. / San Bruno Ave. only the upper portions of Area 2 are visible (see Figure 8d, p. 41). From Little Hollywood, the upper western portions of the rooftops of OB 1 and OB 2 are visible; views from Little Hollywood of remaining portions of the site are blocked by US 101 and landscaping. Upper portions of Area 2 and parts of Area 3 are also visible from portions of the Visitacion Valley neighborhood and Geneva Towers, a high-rise apartment complex, one mile southwest of the project area. The site is not visible from Bayview Hunters Point because Bayview Hill blocks views from the north. All of the site, except for Area 1, is visible from the baylands area of Brisbane. From the shoreline south of the site, all of Areas 2 and 3 are visible; most of Area 1 is hidden by OB 1 and OB 2.



8C: VIEW OF AREA 2 LOOKING NORTH



8D: VIEW OF SITE FROM LITTLE HOLLYWOOD

SOURCE  
ENVIRONMENTAL SCIENCE ASSOCIATES, INC.



From US 101, the Executive Park site serves as a visual gateway to the City because of its location on the south-facing slope of Bayview Hill. Bayview Hill is one of the first distinguishable features of the City when one is approaching northbound on US 101. Area 1 is not visible from US 101 until one reaches the inclined portion of US 101 adjacent to the project area. From the Candlestick Park State Recreation Area east of the site, only the upper portion of Area 2 and the eastern part of Area 3 are visible. Overviews of the entire project area are available from the summit of Bayview Hill.

### C. WIND /1/

#### WIND CHARACTERISTICS

In San Francisco, west, northwest, and southwest winds are the most frequent and strongest winds during all seasons. A west wind blows from west to east. Average wind speeds are highest during the summer and lowest during the winter; the strongest wind peaks occur in the winter. At all times of the year, the highest average wind speeds occur in mid- to late-afternoon, while the lowest occur in the early morning.

The strongest and most frequent wind direction near the project area (as measured at the San Francisco Airport) during most months is from the west./2/ Southwest winds are typically the second most frequent and second strongest winds. Northwest winds have had the second highest average speed during some years.

Wind conditions are a determinant of pedestrian comfort on sidewalks, plazas and open space areas. Near-street-level winds above about ten miles per hour (mph) begin to annoy pedestrians, disturbing hair, blowing dust, and causing loose clothing to flap. Winds above about 25 mph cause severe disturbance to hair and clothing; umbrellas are difficult to use, and pedestrians encounter resistance in walking from place to place. At wind speeds above 35 mph, walking is difficult and gusts can become dangerous, blowing large objects around and in some cases causing pedestrians to lose their balance. At San Francisco's 56°F average temperature, a ten-mph wind creates a wind chill factor (perceived temperature under no-wind conditions) of about 46°F; a 25 mph wind results in a wind-chill factor of 39°F./3,4/



Existing wind speeds for the site were determined from wind tunnel tests using a scale model of the site and vicinity, and modeled average peak hour freestream wind speeds.<sup>/5, 6, and 7/</sup> Ratios of modeled freestream wind speeds to wind speeds measured at various locations on a scale model were calculated. These ratios were then multiplied by actual average peak-hour freestream wind speeds (see note <sup>/5/</sup> for sources of these actual speeds) to model existing average peak-hour winds for various locations on the site. The wind study for the site includes separate tests of the most common winds in San Francisco (west, southwest, and northwest winds) under existing conditions, with the proposed project, and with a development plan alternative (see discussion of Alternative C, p. 173). Refer also to Appendix C, p. 212 for the locations of wind speed measurements.

Wind speed and direction in the project area are influenced by Bayview Hill, north of the site, and US 101, which is built on raised fill and forms a western barrier to the project area.

Average wind speeds, as used in the following discussion, refer to the average summer afternoon, which is the peak period for worst-case wind speeds in San Francisco. Therefore the descriptions of average wind speeds and chill factors are worst-case.

##### WEST WIND

Existing near-surface average summer afternoon winds range from six to 26 mph within and around the project area. The lowest winds occur on the western edge of the project area, in the lee (facing direction of the west wind) of the elevated portion of US 101. The central area of the project site as well as most of the hillside area have average winds between 12 and 18 mph.

The existing Executive Park complex, bounded by Harney Way and Executive Park Blvd. North (other than the western edge of this portion of the site), experiences winds of between 12 and 17 mph. This similarity of average winds can be explained by the openness of this area and its relatively flat topography.

Average peak-period winds are 16 mph at the undeveloped Candlestick Point State Recreation Area and average about six mph inside of Candlestick Park, although turbulent

at times. (Wind speeds under ten mph do not significantly affect temperature perception of pedestrians.) This six mph is an average over the long-term; short-term gusts up to 20 mph can occur, especially in the late afternoon and early evening. Just north of the site, at Bayview Park and Bayview Hill, winds are between 18 and 26 mph.

Winds along the maximum gradient crest area of Bayview Hill accelerate rapidly around the rear (east) portion of the hill, causing extremely irregular and gusty winds between Jamestown Ave. and Candlestick Park.

##### NORTHWEST WIND

Existing near-surface average summer afternoon winds range from two to 18 mph within and around the project area. The southwestern portion of the site generally experiences the lowest winds on site (four to nine mph), although Highway 101 is less effective in reducing northwest winds than west or southwest winds. The eastern edge of the site, north of Harney Way and west of Jamestown Ave., has winds up to about 14 mph. North of Executive Park Blvd. North, average winds range from nine to 15 mph, with most readings in the 13 to 15 mph range. Bayview Hill Park has average wind speeds of about 16 mph, and Candlestick Point State Recreation Area averages nine mph. Wind accelerates rapidly over the crest of Bayview Hill, resulting in turbulent eddies over Jamestown Ave Ext. Near-surface wind speed ratios were not measured for a northwest wind in Candlestick Park and the Little Hollywood area; these locations are cross-wind of the site, and far enough from the project area so that changes in the wind environment created by the project would have negligible effect.

##### SOUTHWEST WIND

Existing near-surface average summer afternoon winds range from four to 18 mph within and around the project area. The northwest portion of the site, bounded by Executive Park Blvd., US 101, and Bayview Hill Park, currently has the lowest average wind speeds, in the four to eight mph range. US 101 is elevated just west of the site, and provides significant damping of winds blowing into the western third of the site. Winds increase from west to east across the site as the wind shadow effect of US 101 subsides. Winds in the triangle formed by OB 1, OB 2, and OB 3 average ten mph and increase to about 14 mph at the eastern end of the site. Winds average four mph in the eastern part of the

Little Hollywood area, nine mph in Candlestick Point State Recreation Area, and 15 mph in Bayview Hill Park. Winds shed off the downwind (east) side of Bayview Hill create a highly turbulent wake which affects Candlestick Park. This results in gusty winds, combined with an eight mph average wind speed at ground level in Candlestick Park.

#### NOTES - Wind

/1/ This section is based on a study entitled "Wind-Tunnel Studies of the Executive Park," December, 1982, by Dr. Bruce White, prepared for Environmental Science Associates, Inc. A copy of this study is on file at the Office of Environmental Review. Dr. White is Associate Professor of Mechanical Engineering at the University of California at Davis. His involvement with this project was independent of the university.

/2/ Wind data were obtained from the San Francisco International Airport Weather Station.

/3/ Discussion of wind effects on pedestrians is based on San Francisco Planning and Urban Renewal Association, 1975, Impact of Intensive High Rise Development on San Francisco.

/4/ Wind chill estimates are based on U.S. Department of Commerce National Oceanic and Atmospheric Administration, Environmental Data Service, 1973, Climates of the United States.

/5/ Hourly wind speed and direction data for July, 1975 were collected on Sutro Tower atop Mt. Sutro by the Department of Meteorology, San Jose State University. Hourly wind speed and direction data for July, 1975 were collected on the roof of the Bay Area Air Quality Management District (BAAQMD) building, 939 Ellis St.

The Sutro Tower data were collected at a greater height than the downtown data, and are therefore more representative of actual "freestream" wind speeds above San Francisco. Sutro Tower wind speeds are consistently higher than those from 939 Ellis St.; however, the two sets of wind speed data vary in an approximately proportional relationship. This, along with the directional correlation, provides evidence for similar freestream conditions over both areas. Because wind conditions on Sutro Tower are considered to be similar to those above the Executive Park site (Ken Mackay, Ph.D., Professor of Meteorology, San Jose State University, telephone conversation, June 30, 1983), estimates of average freestream winds above the downtown should also be representative of those above the Executive Park site.

/6/ Freestream winds are the unimpeded winds well above buildings and topographic features; such surface features reduce wind speeds, but also make winds more turbulent or "gusty." By means of comparisons of data collected at the 939 Ellis St. building and Sutro Tower, the following are used as average freestream wind speeds during summer afternoons in San Francisco: for west winds, 36 mph; for southwest winds, 33 mph; and for northwest winds, 27 mph.

/7/ Dr. Bruce White, December 1982, Wind Tunnel Studies of The Executive Park; the analysis included 1) flow visualization tests, which placed a continuous stream of smoke at



various locations to determine wind directions, and 2) hot wire anemometer measurements of wind speed ratios and turbulence intensities at 42 locations on and adjacent to the project site.

### **D. TRANSPORTATION, CIRCULATION AND PARKING**

#### **STREET SYSTEM**

Access to the project site is provided by Alana Way, Harney Way, and Blanken Ave. as shown in Figure 9, p. 47. Harney Way provides direct access to the northbound on- and off-ramps of the Bayshore Freeway (US 101) and Alana Way provides access to the southbound ramps at Beatty Ave. via an underpass. Bayshore Blvd., a major north-south street which provides access to Brisbane and parts of Daly City and San Francisco, is accessible from the site via Blanken Ave. or via Beatty Ave. and Tunnel Ave. Blanken Ave. is a residential street serving the Little Hollywood neighborhood. Beatty Ave. is a local street in Brisbane that connects to Tunnel Ave., a north-south local street that serves industrial and commercial areas in both San Francisco and Brisbane. Harney Way east of the site connects with Jamestown Ave., which provides access to Candlestick Park Stadium and to the Bayview Hunters Point neighborhood. All streets which currently serve the site are designated as local streets and normally operate as two-way streets, except during pre- and post-event periods for Candlestick Park events, when Harney Way and Jamestown Ave. are regulated to operate as reversible one-way streets.

All of the intersections adjacent to the site are controlled with stop signs. The nearest signalized intersection is about one-half mile to the west at Bayshore Blvd. / Blanken Ave. / San Bruno Ave. This intersection is controlled by a three-phase, traffic-actuated signal.

#### **TRANSIT**

Four Muni motor coach lines operate in the vicinity of the Executive Park site area, as shown in Figure 9, p. 47. Two Muni lines, the 15-Third and 25-San Bruno, operate on Bayshore Blvd. (west of the site) and provide crosstown service through the San Francisco downtown area to North Beach and Nob Hill. One of the Muni routes, the 56-Rutland, enters the site via Blanken Ave., providing neighborhood service between the site and the corner of San Bruno Ave. / Mansell St. A transfer point between the 56-Rutland and the 15-Third and 25-San Bruno lines is located at Blanken Ave. and Bayshore Blvd.

## EXECUTIVE PARK DEVELOPMENT PLAN



### LEGEND




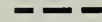
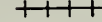
-  SAMTRANS ROUTE
-  MUNI ROUTE
-  EXISTING 56 MUNI
-  EXISTING 29 MUNI
-  SPRR

FIGURE 9: REGIONAL AND LOCAL  
STREET SYSTEM AND  
TRANSIT SERVICE

SOURCE: ENVIRONMENTAL SCIENCE ASSOCIATES, INC.



EXECUTIVE PARK  
DEVELOPMENT PLAN



- LEGEND
- SAMTRANS ROUTE
  - MUNI ROUTE
  - EXISTING 56 MUNI
  - EXISTING 29 MUNI
  - SPRR

FIGURE 9: REGIONAL AND LOCAL  
STREET SYSTEM AND  
TRANSIT SERVICE

SOURCE: ENVIRONMENTAL SCIENCE ASSOCIATES, INC.



The 29-Sunset operates between the Balboa Park BART station and Fitzgerald and Gilman Aves. in the Hunters Point / Bayview residential area north of the project site. There is a transfer point between the 56-Rutland and the 29-Sunset at Mansell St. and San Bruno Ave. Muni is currently studying a potential re-route of the 29-Sunset which would provide feeder service between the project site, the Balboa Park BART station, and the Bayshore Southern Pacific (SP) station (at Tunnel Ave. and Scavenger Road, about one-half mile from the site; see Figure 9, p. 47). The rerouting would require construction of an access grade crossing proposed to be restricted for use by Muni vehicles only, at the Southern Pacific Railroad tracks (southwest of the site), and a roadway extension./1/

Service between San Mateo County and downtown San Francisco is provided by SamTrans. Two lines (the 7B and 24B) operate on Bayshore Blvd. The 7B stops at Blanken Ave. / Arleta Ave. adjacent to the 56-Rutland stop. The 24B stops at Geneva Ave., about one mile southwest of the site and about one-third mile from the closest 56-Rutland stop. SamTrans Bayshore Freeway express routes (7A, 7R, 7Z, and 7F) do not stop in the project vicinity. Rail service to the southern Peninsula and downtown San Francisco is provided by CalTrans and the Southern Pacific Transportation Company from the Bayshore Station, about one-half mile west of the Executive Park site.

#### PEDESTRIANS

At present, the only sidewalks in the site area are on Executive Park Blvd. and Harney Way fronting the site. These sidewalks are used primarily by employees of OB 1 and OB 2 and secondarily by people attending events at Candlestick Park Stadium. As no other occupied uses are in the immediate project area, pedestrian circulation in the site area is extremely light. Pedestrian volumes in the site vicinity increase during events at Candlestick Park Stadium.

#### TRAFFIC

Traffic volumes on local streets in the project vicinity are light as a result of the low intensity of current land uses in the area. Table 6B in Section V., p. 91 (columns one and two) shows operating conditions for typical weekday p.m. peak hours (no activity at Candlestick Park Stadium) at intersections in the vicinity of the site./2/ None of the

intersections in the immediate project vicinity is signalized. The volume to capacity (V/C) ratios and Level of Service (LOS) (see Appendix D, Table D-5, p. 221 for definitions of Levels of Service) have been calculated based upon the assumption that the unsignalized intersections would operate in a two-phase signal mode. As the intersections are controlled by stop signs, this assumption does not quite approximate the existing conditions. However, the approximation was considered sufficiently accurate to calculate data for comparative purposes. (See Appendix D, p. 218 for a discussion of the method of intersection analysis.) Currently, all of the intersections in the immediate project vicinity are operating at Level of Service A during the p.m. peak hour.

The section of US 101 (the Bayshore Freeway) adjacent to the Executive Park site currently operates at capacity in the southbound direction during the p.m. peak hour (V/C ratio of 0.99; LOS E).<sup>/3/</sup> Figure 13, p. 93, shows the operating conditions for this section of freeway for the p.m. peak period. The northbound direction currently operates in free-flow conditions during the p.m. peak hour (V/C ratio of 0.61; LOS B).<sup>/4/</sup>

### PARKING

About 550 parking spaces are currently located in surface lots surrounding OB 1 and OB 2. No on-street parking is provided on the streets surrounding the site.

### EFFECT OF EVENTS AT CANDLESTICK PARK GAMES

Candlestick Park Stadium is a regional sports facility and a home field for both the San Francisco Giants baseball and Forty-niners football teams. It is located about one quarter mile to the east of the site. In 1982, two concerts, 80 baseball games and 11 football games were scheduled for the stadium.<sup>/5/</sup>

Harney Way and Jamestown Ave. Extension, which ordinarily operate as two-way streets, are designated as reversible one-way streets during pre-event and post-event periods. There is heavy traffic on the off-ramps of the Harney Way / Alana Way interchange during pre-event periods and on on-ramps during post-event periods. This heavy traffic often results in long delays, especially during football games, which draw higher attendances than the baseball games.

The Stadium provides about 15,300 parking spaces in the area surrounding it./6/ About 350 spaces in the OB 1 and OB 2 lots are used by Candlestick Park patrons for arranged overflow parking during weekend events./7/ Because of the special operations on Harney Way during events at Candlestick Park, traffic volumes on Blanken Ave., increase during events at Candlestick Park. Traffic approaching the stadium from local streets west of Bayshore Blvd. uses Blanken Ave. as a shortcut to the stadium. Blanken Ave. currently carries two-way traffic volumes of 1,500 vehicles per weekday at the eastern end and 3,000 vehicles per weekday at the western end./2/ Traffic at Candlestick Park adds between 200 and 650 vehicles per event to Blanken Ave./6/

The possibility that Candlestick Park Stadium would be converted to an alternative use is currently the focus of a study being prepared for the City. At the time of completion of this Draft EIR, the stadium study was not available for public review. If the stadium study is available after publication of the Draft EIR, pertinent information from the study will be incorporated into the Final EIR.

#### NOTES - Transportation, Circulation, and Parking

/1/ Muni planning is currently studying the possibility of the 29-Sunset route change. No definite program has been prepared to implement the change nor have any public meetings been held to discuss the route change. Anthony Bruzzone, Transit Planner, San Francisco Municipal Railway, telephone conversation, July 11, 1983.

/2/ Traffic counts made by Environmental Science Associates, Inc. (ESA) on October 4, 6 and 12, 1982 (all weekdays) during the hours of 4:30-6:00 p.m.; the volume for the single peak hour at each intersection was used in the level of service calculation.

/3/ Traffic volumes on US 101 are based upon counts made May 24 and 26, 1977 supplied by CalTrans District 04. Estimates of 1982 volumes were calculated using a growth factor of 1% per year; this factor is used by the Metropolitan Transportation Commission (MTC) in its report entitled Travel Impacts of Proposed Development on the Peninsula Along Route 101, December 3, 1982.

/4/ A.m. vehicle counts have not been taken. The mix of uses proposed for the project (office, retail, hotel and residential) would have a much greater impact on p.m. peak-hour conditions than on a.m. peak-hour conditions. Traffic from Candlestick Park Stadium would overlap with p.m. peak-hour traffic but not with a.m. peak-hour traffic. The freeway section is more congested during the p.m. peak hour than during the a.m. peak hour. (Frederick Dock, P.E., Environmental Science Associates, letters to Darnell Reynolds, District CEQA Coordinator, October 8, 1982 and January 5, 1983.)

/5/ Peter Ash, Planner, San Francisco Recreation and Park Department, telephone conversation, January 3, 1983.



/6/ San Francisco Department of Public Works, October, 1981, Report on Candlestick Park Access. Traffic added to Blanken Ave. by events at Candlestick Park Stadium as stated in the 1981 Report on Candlestick Park is as follows:

<u>Event</u>	<u>Pre-Event (vehicles)</u>	<u>Post-Event (vehicles)</u>
Weekday Baseball	200	50
Weeknight Baseball	360	100
Weekend Baseball	460	130
Football	650	170

Pre-event traffic is eastbound on Blanken Ave.; post-event traffic is westbound on Blanken Ave. Traffic is in vehicles per event and typically occurs during a one- to two-hour period. Post-event traffic is less than pre-event traffic because there are more alternative routes available, which decreases the use of Blanken Ave.

/7/ James Smith, Property Manager, San Francisco Executive Park, telephone conversation, July 5, 1983.

#### **E. AIR QUALITY**

The nine-county San Francisco Bay Area Air Basin is designated by the California Air Resources Board (CARB) as a nonattainment area for ozone and carbon monoxide (CO); the air basin is also a nonattainment area for total suspended particulate (TSP),/1/ but San Francisco County meets the TSP standards./2/ (Total suspended particulates can cause "spot" violation of the standards, without causing the standard to be exceeded for a particular county or air basin.) As required by the Federal Clean Air Act Amendments of 1977, a regional Air Quality Plan has been adopted which establishes control strategies to attain and maintain the various standards by 1987./3/ These strategies include stationary and mobile source emission controls and transportation improvements to be implemented by the Bay Area Air Quality Management District (BAAQMD), Metropolitan Transportation Commission (MTC), and CARB.

BAAQMD maintains and operates a regional air-quality monitoring network. The closest BAAQMD air quality monitoring station is approximately four miles to the north of the site at 900 23rd St. A three-year summary of the data collected and the corresponding ambient air quality standards are shown in Appendix E, p. 222. These data show occasional excesses of the most stringent ozone, CO, TSP, and nitrogen dioxide standards.

Highest annual pollutant concentrations in San Francisco, while exhibiting fluctuations due to variations in meteorology, have shown an overall improvement during the 1971-1981 period.<sup>/2/</sup> No similar trend in the annual number of standards excesses is evident. Such excesses are infrequent.

San Francisco's air quality, in general, is the least degraded of all the developed portions of the Bay Area. Because of the prevailing westerly and northwesterly winds, San Francisco is more a generator of its own air quality problems (especially CO and TSP) and a contributor to those in other parts of the Bay Area (especially ozone), than a recipient of pollutants from elsewhere. This is because CO and TSP concentrations reflect local emission sources and concentrations are highest at the source and decrease as the pollutants are dispersed by wind. In contrast, ozone is not emitted directly but is a secondary pollutant formed in the atmosphere by a complex series of photochemical reactions involving emitted hydrocarbons and nitrogen oxides. Ozone air pollution is thus a regional phenomenon because the precursor pollutants are carried downwind as the reaction process occurs.

### NOTES - Air Quality

/1/ A nonattainment area is one in which the federal ambient air quality standard for the designated pollutant has been exceeded within the past two to three years.

/2/ Paul Brand, Information Officer, Bay Area Air Quality Management District (BAAQMD), telephone conversation, August 11, 1982.

/3/ Association of Bay Area Governments (ABAG), Bay Area Air Quality Management District (BAAQMD), and Metropolitan Transportation Commission, July 1982, 1982 Bay Area Air Quality Plan, San Francisco Bay Area Environmental Management Plan.

## F. NOISE

### NOISE CHARACTERISTICS OF THE PROJECT AREA

For the purpose of noise analysis, the project area can be characterized as a basin with steep slopes to the east and north. These slopes cause sound waves (noise) to be reflected upward against the hillside instead of allowing a usual horizontal attenuation/dissipation of sound energy with distance from the noise sound. Noise levels are likely to be higher on the upper slopes of the site than at the toe of the slope because, instead of dissipating,

sound energy is forced to travel vertically and is somewhat concentrated. At the crest of the hill where the angle of the slope is reduced, noise levels diminish rapidly because sound waves are allowed to dissipate both vertically and horizontally.

The noise environment at the project area is dominated by traffic on US 101. Area 1 is least affected by this source because noise is shielded by the grade separation between the project area and US 101.

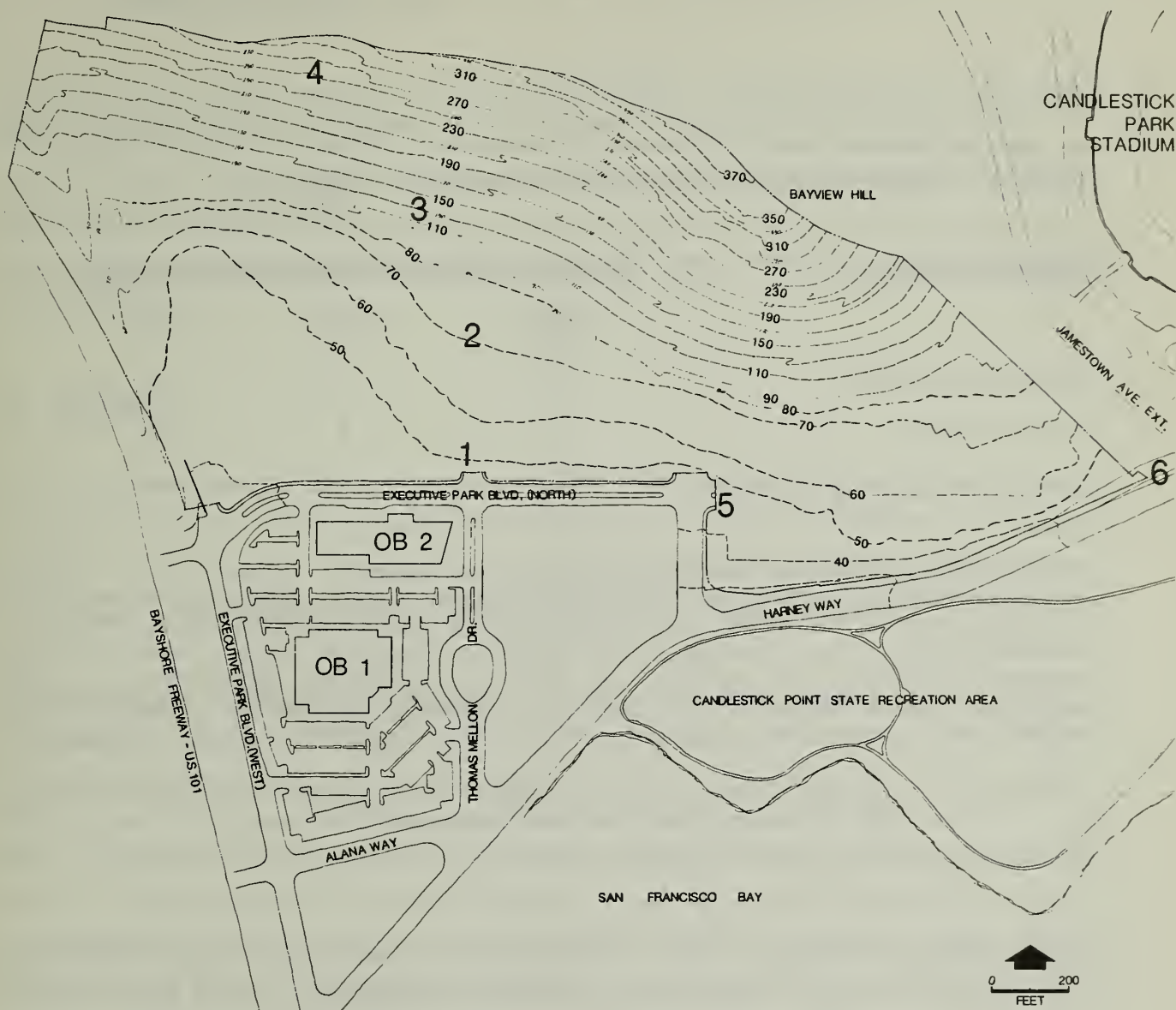
Figure 10, p. 54 shows the location and results of ground measurements taken at six locations on the project site. These noise measurements were taken on Wednesday, December 1, 1982 from 4:36 to 5:53 p.m. during peak traffic levels on US 101. (There were no events at Candlestick Park Stadium contributing to traffic volumes during this time.) During the reading at location 2, traffic volumes appeared to decrease slightly, and then returned to and remained fairly constant at the previous volume during the remaining four readings at locations 3-6. Locations 1-4 were chosen to verify the relationship between noise levels and elevation. Locations 5 and 6 were chosen to give an indication of noise levels near the proposed housing area in the eastern portion of the site.

#### NOISE POLICIES AND REGULATIONS

The Environmental Protection Element of the Comprehensive Plan identifies acceptable noise environments for particular land uses. Table 2, p. 55 indicates land use compatibility for community noise as established in the Comprehensive Plan. The basin portion of the site has ambient noise levels (Ldn)/1/ of greater than 60 dBA/2/ but less than 65 dBA (see Figure 10, Locations 1-4, p. 54), allowing development of office and commercial use without noise insulation measures, and housing uses with noise insulation.

Title 25 of the California Administrative Code, Noise Insulation Standards, applies to all new residential structures, with the exception of single-family detached dwellings. The acceptable outdoor noise level (CNEL)/1/ slightly higher than Ldn) is 60 dBA. In noise environments greater than 60 dBA (CNEL) an acoustical analysis is required to demonstrate that the interior CNEL requirement of less than 45 dBA with windows closed can be met. The eastern portion of the site (Area 3) has an Ldn of less than 60 dBA, thereby allowing development of residential uses without special noise insulation measures.





SITE	TIME (12/1/82)*	Leq**	L <sub>max</sub> **	L <sub>dn</sub> **
1	4:36-4:41 pm	63 dBA	69 dBA	60 dBA
2	4:45-4:52 pm	62	66	59
3	4:58-5:03 pm	65	68	62
4	5:10-5:15 pm	67	73	64
5	5:41-5:46 pm	60	67	57
6	5:48-5:53 pm	56	60	53

There were no events at Candlestick Park Stadium contributing to traffic volumes on this date during these times.

\*\* Leq: Average sound level for the duration of the sample period.  
L<sub>max</sub>: The maximum sound level sampled by the meter during the sample period.  
L<sub>dn</sub>: L<sub>dn</sub> is an averaged sound level measurement, based on human reaction to cumulative noise exposure over a 24-hour period, which takes into account the greater annoyance of nighttime noises. See also note/1/ on p.55.

FIGURE 10: NOISE MEASUREMENT LOCATIONS  
AND EXISTING NOISE LEVELS

TABLE 2: LAND USE COMPATIBILITY FOR COMMUNITY NOISE

<u>Land Use Category</u>	<u>Sound Levels(Ldn) and Land Use Implications</u>		
	<u>55-60</u>	<u>60-65</u>	<u>65-70</u>
Residential and Hotel	A	B	B-C
Office Buildings	A	A	A-B
Commercial (Retail, Restaurants)	A	A	A-B

A: Satisfactory with no special noise insulation requirements.

B: New construction or development should not be undertaken until a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

C: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

SOURCE: City and County of San Francisco Comprehensive Plan, September 19, 1974, Environmental Protection Element, p. 19.

During events at Candlestick Park Stadium, associated traffic levels along Harney Way could increase the ambient noise levels to above the acceptable 60 dBA level. This is especially important during nighttime events when noise levels are weighted by 5 dBA between 7 p.m. and 10 p.m. and by 10 dBA after 10 p.m. Nighttime events currently occur approximately 45 times a year.<sup>/3/</sup> During these times, noise levels could increase above the annual average 60 dBA criterion level. For football games, traffic clearance times after games are 95 minutes along Harney Way, 77 minutes along Jamestown Ave. Extension. Nighttime football games occur a maximum of twice a year. For baseball game traffic, clearance times after games are 47 minutes along Harney Way, 30 minutes along Jamestown Ave. Extension.<sup>/4/</sup>

#### NOTES - Noise

/1/ Ldn, the day-night average noise level, is a noise measurement based on human reaction to cumulative noise exposure over a 24-hour period, taking into account the greater annoyance of nighttime noises. Noise between 10 p.m. and 7 a.m. is weighted 10 dBA higher than daytime noise. CNEL (Community Noise Equivalent Level) includes an additional weighting (penalty) of 5 dBA between 7 p.m. and 10 p.m.

/2/ dBA is the measure of sound in units of decibels (dB). The "A" denotes the A-weighted scale, which simulates the response of the human ear to various frequencies of sound.

/3/ Peter Ash, Planner, San Francisco Recreation and Park Department, telephone conversation, January 3, 1983.

/4/ San Francisco Department of Public Works, October, 1981, Report on Candlestick Park Access.

## G. ENERGY

Electricity and natural gas are supplied to San Francisco by Pacific Gas and Electric Company (PGandE). New demands for electricity in northern California will be met primarily with energy derived from coal, nuclear, and hydroelectric sources. Cogeneration (production of electricity from waste heat generated by industrial processes), wind turbine generators and additional geothermal power development will also supplement existing supplies. Among the major new power plants PGandE plans to bring on line are the Diablo Canyon nuclear plant and the Helms Pump Storage hydroelectric plant. Both projects are expected to have their first units on line in 1984. PGandE also anticipates increased purchases of electricity from other utilities. This power had been expected to come from surpluses generated by hydroelectric and nuclear plants in Washington State. These surpluses are now uncertain because of the recent cancellation of plans for two of the five Washington Public Power Supply System nuclear plants and the delay in construction of another, as well as long-term increased local demand in the Pacific Northwest.

PGandE has long-term agreements with Southern California utilities (California Power Pool Agreement) and Pacific Northwest utilities (Pacific Northwest - Southwest Intertie) for energy pooling, exchange, and purchase that will be used in part to meet future peak-period demand./1/

### ON-SITE ENERGY CONSUMPTION

The project area is unoccupied, and no energy is consumed. OB 1 and OB 2 consume about 2.3 million kilowatt hours (kWh) of electricity per year and about 3.3 million cubic feet (cu. ft.) of natural gas per year./2/ The estimated total energy consumption on the existing Executive Park site is about 26 billion Btu at source./3/



### ENERGY CONSERVATION REGULATIONS, PLANS AND POLICIES

Energy efficiency of new development in San Francisco is regulated by state and local requirements. At the state level, residential and non-residential buildings are regulated by Title 24 of the California Administrative Code. At the local level, the San Francisco Administrative Code (Section 31.26(c)) requires energy impact analyses as part of EIRs. In addition, the Energy Element of the Comprehensive Plan (June 3, 1982) and the Citizens Energy Policy Advisory Committee (CEPAC) report contain plans and policies for energy efficiency and conservation measures for existing and proposed development in the City (see Appendix F, p. 223 for a discussion of these regulations, plans and policies).

#### NOTES - Energy

/1/ Moody's Investment Service, 1980, Moody's Public Utility Manual.

/2/ Based on energy consumption monitoring of OB 1 from January through December 1981. This information is contained in a letter report prepared by Jon M. Bernard, Vice President, Air Conditioning Company, Inc., October 4, 1982. OB 2 was assumed to consume energy at the same rate as OB 1, adjusted to reflect the current occupancy of OB 2 (45% as of June 1983).

/3/ The British Thermal Unit (BTU) is a standard for measuring heat. Technically, it is the quantity of heat required to raise the temperature of one pound of water one degree F. (251.98 calories) at sea level. The term "at source" means that adjustments have been made in the calculation of the BTU energy equivalent to account for losses in energy which occur during generation and transmission of the various energy forms, as specified in: ERCDC, 1977 Energy Conservation Design Manual for New Nonresidential Buildings, Energy Resource Conservation and Development Commission, Sacramento, CA. and Apostolos, J.A., W.R. Shoemaker, and E.C. Shirley, 1978, Energy and Transportation Systems, California Department of Transportation, Sacramento, CA., Pro. #20-7, Task 8.

### H. GEOLOGY, SEISMICITY AND HYDROLOGY

#### GEOLOGY

A description of site geology is contained in the San Francisco Executive Park Final EIR (August 12, 1976). That information is incorporated here by reference and is summarized and augmented where necessary in the discussion below. The project site is divided into two physiographic types: a steeply sloping hillside with horizontal terraced benches in the northern portion of the site and a relatively level lowland area in the southern part. The southern slope of Bayview Hill once had a horizontal to vertical slope of between

2.5:1 and 3:1./1/ (A 1:1 slope would be a 45 degree slope.) Project area elevations range from 10 ft. to 40 ft. (San Francisco Datum) along the southern boundary and 250 ft. to 390 ft. along the northern boundary. Bayview Hill crests at an elevation of 450 ft.

The northern hillside portion of the site is underlain by three mappable rock types which are exposed in the hillside cuts: chert, sandstone/shale, and greenstone (see Figure 11, p. 59). The chert is a hard, sedimentary rock that is present at the site in two forms: as a thin-layered sequence with layers of shale and as a massive, structureless rock. A thin-layered chert caps the ridgetop. Where chert layers are in the same direction and angle as the slope, landsliding has occurred along contacts with the shale layers. A central zone of sandstone and shale (softer more permeable rocks), about 400 ft. wide, is flanked on both sides by greenstone (a harder, erosion-resistant rock) in the north and northeastern parts of the site.

The lowland area in the southern part of the site has several different soil conditions. The northern portion of the fill area consists of shallow fills underlain by firm soils and bedrock at depths ranging from 3 ft. to 24 ft. The southern portion of the lowland area contains about 15 to 20 ft. of fill over about 10 ft. of soft marsh deposits (Bay mud) (see Figure 11, p. 59). The fill was placed approximately 25 years ago and has consolidated./2/ Separating these two areas is a transitional zone composed of fills ranging in thickness from three to seven feet over marsh deposits that vary from a few to eight ft. in depth. Firm soils occur below the marsh soils.

Existing slope cuts are fairly stable; as a result of grading activities, some slopes are unstable and a number of landslides have occurred in the past (see Figure 11, p. 59). Numerous small and two moderate-sized landslides occur on the site at the contact between different rock types, especially between chert and other rock types. The two largest slides are rock slides, occurring near the top of the existing cut slope at the upper edge of the property. According to a 1977 site investigation, the slides are still active, but have become fairly stable so that only a small amount of sliding still occurs./2/ No major or minor slope failures were noted after the heavy rains in 1982 and 1983; however minor failures could have occurred, and local erosion and shallow slope failures could be triggered by heavy rains in the future.





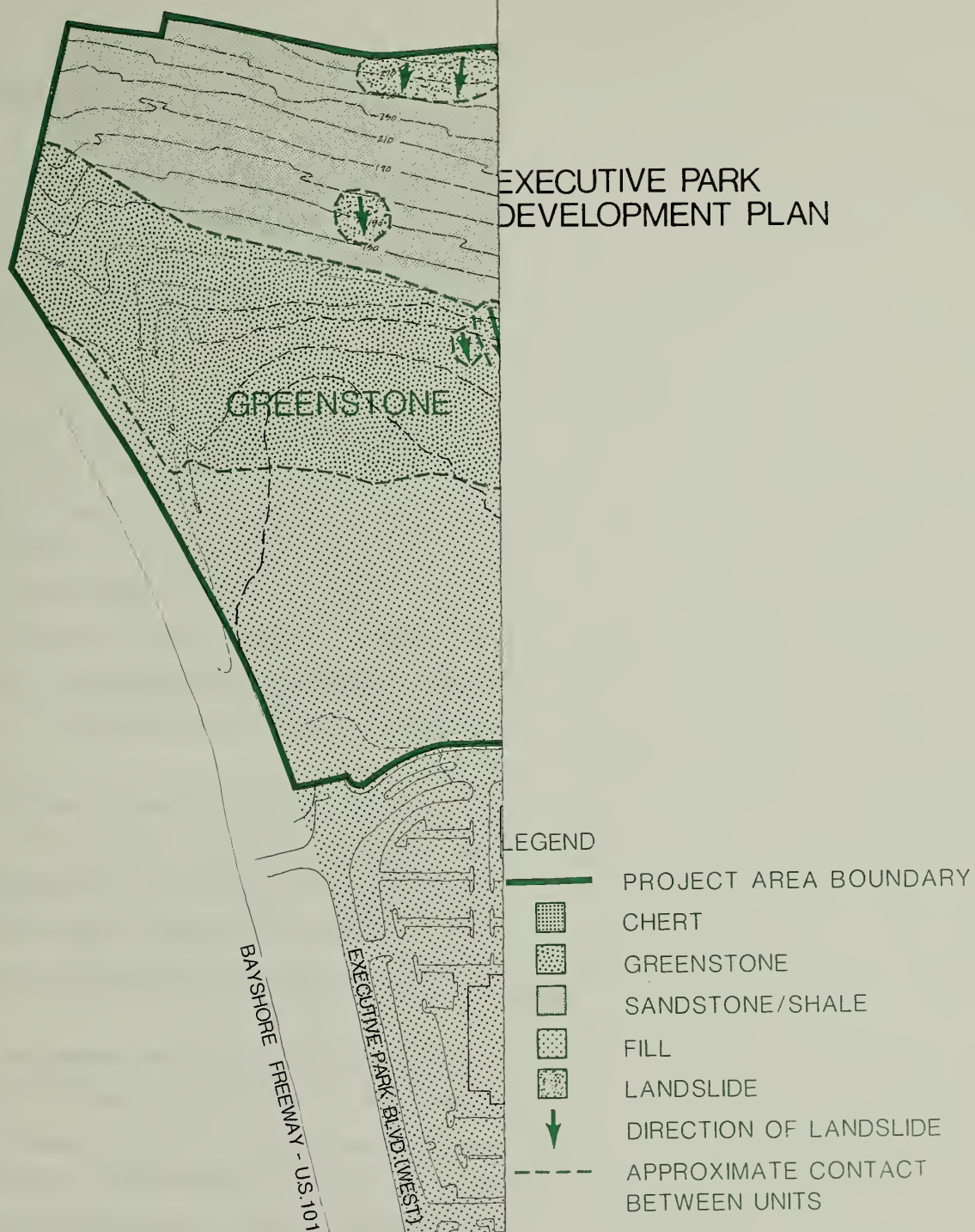


FIGURE 11: EXISTING GEOLOGY  
AND TOPOGRAPHY

NOTE Figure does not include proposed grading  
for OB 4; grading for OB 3 is shown

SOURCE

BASE: HELLMUTH, OBATA, & KASSABAUM

GEOLOGY: HARDING-LAWSON ASSOCIATES, 1977



## EXECUTIVE PARK DEVELOPMENT PLAN

### LEGEND

- PROJECT AREA BOUNDARY
- CHERT
- GREENSTONE
- SANDSTONE / SHALE
- FILL
- LANDSLIDE
- DIRECTION OF LANDSLIDE
- APPROXIMATE CONTACT BETWEEN UNITS

FIGURE 11: EXISTING GEOLOGY  
AND TOPOGRAPHY

NOTE Figure does not include proposed grading  
for OB 4 - grading for OB 3 is shown

### SOURCE

BASE: HELLMUTH, OBATA & KASSABAUM

GEOLOGY: HARDING LAWSON ASSOCIATES





## SEISMICITY

The site is located within the seismically active San Francisco Bay region. No active faults are known to exist within San Francisco, but several active faults in the region could affect the site./3/ The San Andreas Fault, which produced the 1906 (San Francisco) earthquake, is located six miles southwest of the site; the Hayward Fault is 13 miles east of the site.

The San Andreas Fault can be expected to produce both major and minor earthquakes in the future. The expected recurrence interval for an earthquake of Richter magnitude greater than 8.0 on the northern portion of the San Andreas Fault is 75 to 200 years./4,5/ The 1906 San Francisco Earthquake had a Richter magnitude of about 8.3. Earthquakes with magnitudes of 5.5 or greater are considered capable of causing structural damage. The Hayward Fault is capable of producing an earthquake of Richter magnitude 7.0 or greater. The expected recurrence interval for an earthquake with a Richter magnitude of 6.0 to 7.0 on the Hayward Fault is 10 to 100 years./5/

The hillside portions of the site are composed mostly of dense and moderately hard rock that will exhibit generally favorable response to seismic forces, with relatively high-frequency but low-amplitude ground motions./1/ The lowland portion of the site will probably display moderate response to earthquake forces, varying in magnitude according to the depth of various fill, Bay mud and soil deposits.

It is estimated that the intensity of ground shaking for the northern and northeastern portions of the site would be weak in the event of an earthquake; weak ground shaking could cause structural damage equivalent to occasional fall of brick chimneys and plaster./6/ In the southwestern portion of the site, ground shaking intensity would be very strong and could cause badly cracked to occasionally collapsing masonry, and lurching with occasional collapse of frame buildings built on weak underpinnings. Intensity of ground shaking would vary with the depth to bedrock; in the northern and eastern portions, bedrock is at the surface or covered with a few to several feet of firm soil, whereas in the southern part variable thicknesses of fill, natural soil and Bay mud occur.

The presence of compressible fill over Bay mud presents a potential subsidence hazard in the southern portion of the Executive Park site (see Figure 11, p. 59). Liquefaction and/or



densification of sandy soils at the site is unlikely because the soils are typically dense and consist mainly of silt and clay./7/

#### HYDROLOGY

No streams or lakes exist within the project area. Springs occur on the upper slopes and are concentrated in areas of weak, sheared rock. Groundwater seepage is occurring on several cut slopes. This seepage is concentrated in areas of recent slides and contacts between different rock types, and produces small ponds on the benches.

Test borings at the site of the proposed OB 4 indicate the groundwater level is about 18 to 20 ft. below the surface./8/ The groundwater generally becomes deeper as the elevation on the site increases (to the north and east), although the groundwater is abnormally high in areas of highly fractured or sheared rock. The groundwater level is about six to eight feet below the surface within the area underlain by Bay mud deposits in the southern portion of the project area.

#### NOTES - Geology, Seismicity and Hydrology

/1/ Dames & Moore, 1969, Preliminary Geological Engineering Study, Slope Stability and General Subsurface Conditions, Proposed Development, Candlestick Cove, San Francisco, California.

/2/ Harding-Lawson Associates, 1977, Geotechnical Investigation, San Francisco Executive Park, San Francisco, California.

/3/ An active fault is a fault which has a historic record or other geophysical evidence of movement within approximately the last 10,000 years.

/4/ The Richter Scale is a logarithmic scale developed by Charles Richter to measure earthquake magnitude by the energy released, as opposed to earthquake intensity as determined by effects on people, structures and earth materials.

/5/ Jim Deitrich, Director, Earthquake Prediction Program, telephone conversation, May 3, 1982 U.S. Geological Survey.

/6/ URS/John A. Blume & Associates, 1974, San Francisco Seismic Safety Investigation, prepared for the Department of City Planning, City of San Francisco.

/7/ Liquefaction is a phenomenon in which there is a sudden loss of strength in loose, water-saturated granular soils during seismic shaking.

/8/ Harding-Lawson Associates, September 1982, Soil Investigation, San Francisco Executive Park Office Building 4, San Francisco, California.

I. ECOLOGY

FACTORS AFFECTING SITE ECOLOGY

The project area is the south slope of Bayview Hill (also known as Candlestick Hill). Bayview Hill is an undeveloped open space area available for continued colonization, maintenance, and propagation of native vegetation and wildlife.

Physical conditions determine the vegetation and wildlife that presently occupy the project area. Because of the southern exposure, with few cooling fogs, the project area has a relatively warm microclimate that is unusual on the upper San Francisco peninsula. Following rains, little moisture is retained because of the slope of the site and the thin, gravelly soil; there are some small ponds on the benches that appear to be fed by water seeping out of the cuts in the hillside. The winds blowing across the site increase the evaporation rate and dry out the soil. The exposure of the project area, lack of shade, and thin, porous soil result in high soil temperatures. The sloping, northern portion of the project area is subject to heavy storm runoff that washes away most of the soil produced by weathering and vegetation.

VEGETATION

As a result of past excavation, the hillside forming the northern portion of the site lacks substantial planting, leaving bare, scarred hillside areas. Previous revegetation programs at the top of the hill have begun to show some results. Steep benched cuts and soil erosion have also resulted in the denudation of certain planted areas./1/

The areas that have been planted include the northeast portion of the site where trees were planted at least eight years ago. Planted Cypress trees in this area are mature but not dense. In addition, the northwest benches have been planted. Slopes separating these benches are not as steep as those to the west and were planted on two separate occasions with trees, shrubs and groundcover including Monterey pine, ivy, ice plant, acacia species, ceanothus, Bishop pine, hollyleaf cherry and poplar species. During the most recent planting, about two-three years ago, a drip irrigation system was installed, and eight acres of slopes in Area 2 were hydroseeded. As of June, 1983, about 50% of the plants installed in this subarea have been replaced. Some of the vegetation has begun to establish itself,

#### IV. Environmental Setting

but plants are still small. The irrigation system has been damaged by earth and rock movement, small animals, and vandalism, and suffers from insufficient water pressure./1/

Lower portions of the project area have since been colonized by California poppy, owl's clover, lupine, asters, bindweed, broom, buckwheat, thistle, mustard, wild radish, clover, checker (bloom), filaree, erigonium, tarweed, fennel, other herbs and forbs, and annual grasses. Most of the latter plants are pioneer species that commonly are the first plants to establish themselves on disturbed sites. Patches of cattails and other plants requiring wet soils grow where small ponds of water are maintained by seeps in the hillside.

#### WILDLIFE

Butterflies and other insects are abundant, primarily because of the warm, dry microclimate and the stands of fennel, aster, and other vegetation growing on the western lower portion of the site. Wildlife observed include western fence lizard, sparrow hawk, common flicker, Anna's hummingbird, killdeer, mockingbird, house finch, mourning dove, and red-tailed hawk./2/ Signs of pocket gophers, rabbits, dogs, and ground squirrels were evident. In addition to those observed, the site is probably used by several species of song birds, reptiles, amphibians, and small mammals. Raccoon, opossum, and skunk probably inhabit denser vegetation at the crown of Bayview Hill, north of the site, and include the site in their nocturnal foraging. Pounded water observed on the site may be a source of surface water to local wildlife.

#### RARE AND ENDANGERED SPECIES

Three species of endangered or rare butterflies occur in the vicinity, the endangered San Bruno elfin (Callophrys mossii bayensis) and the mission blue (Plebejus icarioides missionensis), and the rare Callippe Silverspot (Speyeria callippe callippe). The distribution of these butterflies is determined largely by the presence of their host plants. The host plant for the San Bruno elfin butterfly is stonecrop (Sedum spathulifolium). The host plants for the mission blue butterfly are perennial lupines such as Lupinus albifrons, and Eriogonum latifolium. The host plant for the Callippe Silverspot is viola pedunculata./3/



The San Bruno elfin, mission blue and Callippe Silverspot have not been noted on the Executive Park site, nor were their food hosts noted. Therefore, it is unlikely that these butterflies reside on the site./3/

Coast rock cress (Arabis blepharophylla), listed by the California Native Plant Society (CNPS) as rare, but not endangered, occurs on San Bruno Mountain, in McLaren Park, and on the northern side of Bayview Hill./4/ CNPS lists the coast rock cress as formerly occurring on the Executive Park site, but now extirpated./4/ Diablo helianthella (Helianthella castanea), listed by the CNPS as rare and endangered, is also recorded as formerly occurring on the site but now extirpated from the site./4/ Neither of these species has been recently observed to occur on the site./2/.

#### NOTES - Ecology

/1/ Sara Liss-Katz, Landscape Architect, Hellmuth, Obata and Kassabaum, Architects, interview, June 20, 1983.

/2/ Field visits were conducted by Environmental Science Associates on October 12, 1982, March 19, 1983 and June 10, 1983.

/3/ Dr. Richard Arnold, Research Fellow, University of California, Berkeley, "Entomological Survey on San Francisco Executive Park for Rare and Endangered Species", letter report, May 31, 1983. A copy of this report is on file and available for public review at the Office of Environmental Review, 450 McAllister St., 5th Floor.

/4/ California Natural Diversity Data Base, October, 1982.

### J. EMPLOYMENT, HOUSING AND FISCAL FACTORS

#### EMPLOYMENT

As the project area is unoccupied, there is no employment. OB 1 and OB 2, which are part of the existing Executive Park complex, employ about 450 persons. As of June 1982, OB 1 was fully leased by 28 tenants, employing about 335 people; OB 2 was about 45% leased by seven tenants, employing about 115 persons./1/ Tenants of OB 1 and OB 2 are mostly business machines, sales, insurance, computer, and marketing businesses./1/

### OFFICE MARKET

The project area is located six miles from downtown San Francisco, the major office center in the Bay Area. Downtown San Francisco contains approximately 57.2 million gross sq. ft. of office space. Office buildings with a total space of approximately 32.3 million sq. ft. were constructed in downtown between 1960 and 1981. As of January 1983 another 18.4 million gross sq. ft. of net new office space in downtown San Francisco is under construction, approved or under formal review./2/

Because of its location on the San Mateo / San Francisco County line, the Executive Park site is related to both the San Francisco and San Mateo County office markets. About 17 million sq. ft. of office space is under construction or proposed for development in central and northern San Mateo County along the Bayshore Freeway Corridor (US 101) (see also Appendix D, Table D-3, p. 219)./3/ A total of about 6.2 million sq. ft. of office space currently exists in this area./4/

Square footages of developments proposed for downtown San Francisco and San Mateo County do not include the 1.5 million sq. ft. of office space proposed as part of the project.

Tenants attracted to the Executive Park site are service-oriented firms that do not require a downtown location./5/ Factors which have attracted firms to the Executive Park site are lower rents (an annual average of \$22 per sq. ft. at the site as compared to about \$35 per sq. ft. for downtown office space); the provision of free parking; direct access to US 101; and the close proximity to the airport (especially for regional sales offices)./6/ Average rents at OB 1 and OB 2 are comparable to rents in northern San Mateo County, which range from \$18 to \$23 per leasable sq. ft. per year./6/

### EMPLOYEE RESIDENCE AND HOUSING FACTORS

Employees of OB 1 and OB 2 were surveyed in October, 1982 to determine their incomes, housing preferences, and transportation patterns (see Appendix D, Figure D-1, p. 214 for a copy of the survey questionnaire).

The survey results indicate that about 37% of current employees at Executive Park reside in San Francisco and 38% in San Mateo County. A 1980 survey of the workers at OB 1

found that 37% of the workers lived in San Francisco and 43% on the Peninsula. The remainder live in the East Bay (12%) and North Bay (8%); see Table 13, p. 127. The proportion of San Francisco residents is similar to that of workers in downtown San Francisco (i.e., 40% of downtown office workers live in San Francisco). The proportion of San Mateo County residents working at Executive Park (35%) is higher than for downtown workers, 18% of whom are estimated to live in San Mateo and Santa Clara Counties.

#### FISCAL FACTORS

The assessed value of the project site in fiscal year 1982-83 was approximately \$1.0 million. At the fiscal year 1982-83 property tax rate of \$1.17 per \$100 of assessed value, the site generates about \$11,800 in total property tax revenues (including general City bond repayment). Of this amount, the City's General Fund receives about \$8,800. The complete distribution of these revenues is shown in Table 3, p. 67.

The project area is currently unoccupied and generates no additional tax revenues for the City and County of San Francisco. Costs incurred by the City to service the project area are negligible.

#### NOTES - Employment, Housing and Fiscal Factors

/1/ James Smith, Property Manager, San Francisco Executive Park, telephone conversation, March 31, 1983.

/2/ Cumulative Office Development in Downtown San Francisco as of June 1, 1983. This list is on file and available for public review at the Office of Environmental Review, 450 McAllister St., 5th Floor.

/3/ Metropolitan Transportation Commission, September 9, 1982, Travel Impacts of Proposed Development Along Route 101, and Blayney-Dyett, Urban and Regional Planners, July 1982, Proposed Specific Plan: Offshore Office Park and Baylands Development Area Brisbane.

/4/ Coldwell Banker, December 1982, The Commercial Real Estate Market in The San Francisco Bay Area, 1983.

/5/ Mills-Carneghi Incorporated, San Francisco Executive Park Marketing Study, August 22, 1980.

/6/ Barrie Hart, Office Leasing Broker, Cushman and Wakefield, telephone conversation, January 8, 1983.



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TABLE 3: DISTRIBUTION OF PROPERTY TAX REVENUES FROM THE EXISTING PROJECT AREA, FISCAL YEAR 1982-83

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<u>Agency</u>	<u>Ad Valorem Tax Rate*</u>	<u>Percent*</u>	<u>Revenues*,**</u>
City and County of San Francisco			
General Fund	0.874	74.7	\$ 8,800
Open Space Acquisition	0.025	2.1	250
Bond Repayment	0.099	8.4	990
S.F. Community College District	0.014	1.2	145
S.F. Unified School District			
General Purpose	0.078	6.7	780
Debt Service	0.008	0.7	80
Bay Area Air Quality Management District	0.002	0.2	20
BART			
General Fund	0.006	0.5	70
Debt Service	0.063	5.4	630
	<hr/>	<hr/>	<hr/>
TOTAL	\$1.17	100.0%	\$11,765

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\* Sums of Figures do not agree with totals because of rounding.

\*\* Based on the 1982-83 tax rate of \$1.17 per \$100 of assessed value and an assessed value of \$1,006,600.

SOURCE: San Francisco Controller's Office; calculations by Environmental Science Associates, Inc.

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## V. ENVIRONMENTAL IMPACTS

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### EFFECTS FOUND NOT TO BE SIGNIFICANT

An Initial Study for the proposed project was published September 24, 1982, and a determination was made that an Environmental Impact Report (EIR) was required. Environmental effects identified in the Initial Study as either insignificant or mitigated through measures included in the project are: relocation of residents or businesses, airport noise, construction noise, shadows, public services and utilities, hazards, and historical and archaeological resources. The above issues are not discussed further in this EIR. The Initial Study, included as Appendix B p. 196, may be referred to for a discussion of these issues. Not all impacts discussed in this section are physical environmental effects as defined by the California Environmental Quality Act (CEQA). They are included here for informational purposes only.

### PHASING

CEQA requires that all phases of a project be considered (Sections 15069 and 15143). Therefore, the following impact section analyzes full development of the project and considers phasing only when construction of a particular phase would change the nature or magnitude of an impact. The proposed project would be developed in eight phases over a ten-year period, ending in 1995. The "full-buildout" analysis describes in static terms what would be a gradual, staged development over ten years. This analysis describes project impacts as if total development would occur at once. However it does not account for adjustments in market conditions, public policy, or behavior which would occur as the project proceeds toward full development. Known or expected changes in market conditions, policies and behavior have been incorporated into the impact analysis but it is not possible to predict all changes that could occur during buildout and after full operation of the project.

## A. LAND USE AND ZONING

### LAND USE

The project would replace 50 acres of unoccupied land with 23 acres of office, residential, hotel/meeting and retail uses (including about 3.75 acres of common open space and interior landscaping), totaling about 1.85 million gross sq. ft. of floor area. The remaining 27 acres, above approximately the 230 ft. elevation, would be retained as open space with landscaping and hillside trails, accessible to the public. The project would intensify the scale and diversity of uses at the Executive Park site.

The project area is isolated on the north by the topography of Bayview Hill from the Bayview Hunters Point neighborhood. The project is physically isolated by US 101 from Little Hollywood and Visitacion Valley, except for connection to those neighborhoods via Blanken Ave. and Alana Way underpasses. The project probably would not change the character or mix of uses in these surrounding neighborhoods and in nearby industrial areas. However the project would increase traffic on nearby local streets, and possibly cause indirect growth-inducing effects. See Section V., D. Transportation, Circulation and Parking, pp. 85-87 for a discussion of local transportation impacts. Increased patronage by project residents, office workers and hotel visitors could indirectly stimulate business for the restaurants, drug stores, grocery markets, and retail stores along Third St., Bayshore Blvd., Leland Ave., and San Bruno Ave (see also Section V. K., Growth Inducement, p. 140).

Development of the project area could increase the patronage of existing and proposed portions of the Candlestick Point State Recreation Area. The sponsor is currently working with the State Department of Parks and Recreation to install hillside trails linking to the Recreation Area and to install joint landscaping on the portion of Harney Way that separates the site and the Recreation Area (see Chapter VI. Mitigation Measures, p. 146).

### PLANS AND POLICIES

#### San Francisco Comprehensive Plan

The project would comply with the South Bayshore Plan of the Comprehensive Plan, except for proposed residential uses. Development of the project would require a revision



to the South Bayshore Plan to allow development of up to 500 market-rate housing units. As part of approval of the 1978 Yerby Development Plan, the City Planning Commission amended the South Bayshore Plan by deleting references to development of the site as 700 market-rate housing units and open space and adding a commercial-use designation of the site (Resolution 7543, August 12, 1976). The Commission also amended the Recreation and Open Space Element of the Comprehensive Plan to omit proposed public open space and park development of the site, and the Transportation Element to delete designation of Harney Way as a Recreation Street (Resolution No. 7543, August 12, 1976). The project would conform to these amended Elements.

By developing 23 acres of the 50-acre project area and conserving 27 acres as hillside open space, the project would be responsive to General Objective 1 for conservation, of the Environmental Protection Element. That objective states: "Achieve a proper balance among the conservation, utilization, and development of San Francisco's natural resources."

The proposed project would be responsive to Objective 1, Policy 2 of the San Francisco Comprehensive Plan, Residence Element (April, 1983): "Facilitate the conversion of underused industrial and commercial to residential use."/1/

The project would respond to Objective 3, Policy 1 of the Commerce and Industry Element, which is "to promote the attraction, retention and expansion of commercial . . . firms which provide employment opportunities for unskilled and semi-skilled workers." The project would help to retain and attract businesses that have considered suburban locations with lower rents. Many of the office businesses that would be attracted to the Executive Park site would be service-oriented and would provide employment opportunities for clerical and semi-skilled workers; however proposed office uses would provide few employment opportunities for blue collar or unskilled workers. The proposed hotel and retail/restaurant uses and maintenance operations would provide entry-level job opportunities. (See V, J., p. 122 for a discussion of permanent employment opportunities that would be created by the project.)

The proposed project would not be fully responsive to Objective 10, Policy 1 of the Commerce and Industry Element, "...the City should encourage additional visitor oriented facilities to locate in those areas where visitor attractions and business and convention

facilities are at the present time primarily concentrated." Although there is currently no established tourist use in the area, the project, in conjunction with the 300- to 700-room hotels proposed for the Southern Pacific Baylands Development Area, could provide a tourist base in proximity to the Cow Palace, San Francisco International Airport, Candlestick Park Stadium, and existing and proposed shoreline open space. However, the hotel uses at the site would not necessarily attract tourist-oriented facilities as the hotel is expected to attract primarily overnight business travelers associated with on-site office and meeting space rather than vacation tourists.

### Other Applicable Plans

The project would not affect uses proposed in the Brisbane Waterfront Plan which include a linear park along the shoreline with a view restaurant at the Beatty Ave. / Harney Way freeway ramps./2/ The project would also complement the office, commercial, and hotel uses proposed for Southern Pacific Bayland Office Park and Redevelopment Area./2/

The project would not address the San Francisco Bay Conservation and Development Commission's (BCDC) recommendation for development of the project area as part of a shoreline park./3/ The proposed development plan would preclude for the life of the project the use of the built-up portions of the site as open space.

### ZONING

The basic FAR permitted in the C-2 district by Section 124 of the City Planning Code is 3.6:1. This FAR would allow development of about 7.8 million gross sq. ft. of floor area within the 50-acre project area./4/ Gross floor area of the proposed project would be about 1.85 million sq. ft. Therefore the project would develop about 6.0 million fewer sq. ft. of floor area than is allowed for the project area, exclusive of floor area premiums for corner or interior lots. The project would have a basic FAR of 0.85:1 when calculated for the entire 50-acre site. On the basis of the 23 acres proposed for development, the project would have an FAR of 1.85:1. The permitted residential density for the site of one unit per 800 sq. ft. of (lot) site area would allow development of about 2,725 units within the 50-acre project area.

A total of about 2.35 million sq. ft. of floor area would be developed at the Executive Park site including the proposed project (1.85 million sq. ft.), the existing floor area in

OB 1 and OB 2 (210,000 sq. ft.), and proposed floor area for OB 3, OB 4 and the Alana Way restaurant (289,000 sq. ft.). This 2.35 million gross sq. ft. of development would be 5.4 million sq. ft. less than would be allowed for the entire 71-acre Executive Park site at an FAR of 3.6:1.

Proposed building heights would vary from 65 ft. to 165 ft. for office and office/residential structures, and 40 ft. to 120 ft. for residential buildings. The height of the hotel structure would be approximately 160 ft. Portions of the project area outside of the 230-G Height and Bulk district would require a zoning reclassification from the existing 40-X Height and Bulk district (see Figure 7, p. 36). All of the project area, except for the two southern tiers of Area 3 housing, would need to be reclassified to 165-I district; the two lower tiers of housing would remain in the 40-X district.

Total parking provided for the Executive Park site would be about 5,100 spaces, including 3,900 spaces for the proposed project and 1,200 spaces for OB 1 - OB 4. The amount of proposed parking would exceed minimum required parking, by about 1,100 spaces (Section 151 of the City Planning Code). This additional parking would be permitted as accessory parking (Section 204.5). Eighteen off-street loading spaces would be provided; a specific loading plan has not been developed for the site. The number and dimensions of the loading spaces would conform to the requirements of City Planning Commission Resolution No. 9286, which are more restrictive than the requirements of the existing City Planning Code. Refer also to p. 95-97 for further discussion of parking and off-street loading requirements.

#### NOTES - Land Use and Zoning

/1/ City and County of San Francisco, April 1983, Residence Element of the Comprehensive Plan.

/2/ City of Brisbane, February 1978, City of Brisbane Waterfront Plan and Environmental Impact Report, adopted August 1978.

/3/ San Francisco Bay Conservation and Development Commission, July 1979, San Francisco Bay Plan.

/4/ The 7.8 million square feet allowable floor area was based on developing the entire 50-acre project area at an FAR of 3.6:1. Publicly dedicated streets should be subtracted from the 50 acres before this calculation is made. This was not done because widths and lengths of streets are not known at this conceptual plan stage; the FAR of the project would still be far below the maximum allowable FAR.



## **B. VISUAL FEATURES**

The project would alter substantially the visual characteristics of the site by grading and new building construction; the proposed amount of grading would be no more than what was previously approved under the 1978 Yerby Plan (with 1980 and 1981 amendments).

Area 1 would be the least altered portion of the site; minimal alteration of the existing topography could occur. Area 1 would be graded to a uniformly rising topography and would be covered by office buildings ranging in height from 65 to 165 ft. (see Figures 2 and 4, pp. 22 and 24 for the project area boundaries). The office buildings would become the dominant visual element.

In Area 2 the project area would be visually altered by grading of the lower portions of the hillside and construction of the combined office/housing complex and the hotel/meeting facility ranging up to 165 ft. in height. In Area 2, the western and central foot of the hillside would be cut back and the proposed buildings would be set into the slope (a maximum total vertical cut of 85 ft.). Construction of the office/housing complex on the western portion of Area 2 would not disturb topography above the 160 ft. elevation. In the central portion of Area 2, where the hotel would be constructed, no alteration of topography would occur above the existing 230 ft. elevation. (See Figure 3, Cross-Section BB, p. 23.) The exteriors of the office buildings would be tiered. The hotel complex would be stepped into the hillside. Almost the entire western and central foot of Bayview Hill would be covered by the proposed buildings (see Figure 4, p. 24).

Hillside landscaping and a trail system would be installed in Area 2. The trail system would open up to the public new views from the hillside. Proposed landscaping would soften the visual appearance of the exposed benched slopes. The proposed hillside restaurant and funicular would be prominent visual features of the project area. The restaurant and funicular (including cable support towers) could detract from the open-space character of the hillside, depending upon the amount of landscape screening and the number, spacing, design and lighting of the funicular towers.

Area 3 would be changed by the grading of the existing bench between the foot of Bayview Hill and Harney Way (see Figure 3, Cross-Section CC, p. 23). A three-tiered cluster of residential structures, with heights ranging from 40 ft. to 120 ft., would become

the dominant visual element of Area 3. The heights of the buildings would increase from south to north so that lower buildings would be situated against the backdrop of taller buildings at the foot of the benched slope; topography of the hill would not be modified above the existing 100 ft. elevation in Area 3.

### VIEWS OF THE PROJECT AREA FROM SURROUNDING VICINITY

Figure 12 on p. 75 shows the conceptual scale and massing of the proposed project when viewed from US 101. In views from surrounding and distant locations, the visual density of the project area would be increased by the proposed buildings and landscaping. Construction of mid-rise buildings at the base of the hill and the funicular and restaurant on the hillside would alter views from Little Hollywood of the now vacant Bayview Hill. In Area 1, the upper portions of buildings 100 ft. or taller would be visible from Little Hollywood. The project would not block easterly views of the Bay from Little Hollywood, although some foreground views of the Bay would be lost. The project buildings would be visible from the Visitacion Valley neighborhood and the developed areas in the City of Brisbane. From these areas, the site would no longer appear as vacant open space; instead, the site would appear to have a variety of clustered buildings of varying shapes and sizes at the foot of Bayview Hill. The project would appear similar to a small town against the hillslope, particularly at night when the lights of the project would illuminate much of the hill. The project would create similar visual effects when viewed from US 101 and the Bay. Most views of the Bay from US 101 and Bayview Hill would be fully preserved, except in Area 3 where the northernmost housing tier would obscure views of the eastern lower slope. The unvegetated hillside portions of the site would be altered visually by implementation of proposed landscaping measures included in the project (see VI. Mitigation Measures, p. 158).

Table 4, p. 76 shows the relationship of the proposed project to applicable Urban Design Principles and Policies of the San Francisco Comprehensive Plan.

### C. WIND/1/

Average winds, as used in this section, refer to the average summer afternoon winds, which are the peak-period annual wind speeds in San Francisco. See Appendix C, p. 212 for a figure which shows the locations of wind tunnel test measurements.





NOTE: The placement, height, and design of structures are conceptual and subject to ongoing review by the Department of City Planning.

SOURCE  
PETER SZASZ & ASSOCIATES PHOTOGRAPHY; AND  
ENVIRONMENTAL SCIENCE ASSOCIATES, INC.

FIGURE 12: VIEW OF PROPOSED DEVELOPMENT PLAN  
(CONCEPTUAL SCALE AND MASSING)



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TABLE 4: RELATIONSHIP BETWEEN APPLICABLE URBAN DESIGN POLICIES OF THE COMPREHENSIVE PLAN AND THE PROPOSED PROJECT

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<p>1. <u>Objective 1, Principle 1.</u> "Recognize and protect major views in the City, with particular attention to those of open space and water."</p>	<p>The project would not block views of the Bay from view points on Bayview Hill. Some foreground views of the Bay from directly west of the site in Little Hollywood would be blocked. See items 2 and 3 below.</p>
<p>2. <u>Objective 1, Principle 2.</u> "Street layouts and building forms which do not emphasize topography reduce the clarity of the City form and image."</p>	<p>Some of the buildings would be stepped into the hillside; building designs, except in the Area 3 housing, would be tiered to reflect the slope of Bayview Hill (see Figure 4, p. 24)</p>
<p>3. <u>Objective 1, Principle 4.</u> "Where large parks occur at tops of hills, low-rise buildings surrounding them will preserve views from the park and maintain visibility of the park from other areas of the City."</p>	<p>The project would be located at the foot of Bayview Hill, an undeveloped City park. The maximum height of new buildings would be about 165 ft. (measured from the existing grade), which would help preserve Bayview Hill as a prominent visual feature. This would be consistent with General Policy 1 of the Environmental Protection Element. Proposed building heights would block some views from Bayview Hill below the existing 230 ft. elevation. The project would not develop the three, 230 ft.-high towers approved in the 1981 Master Plan; this would help to preserve Bayview Hill as a major feature of the view.</p>
<p>4. <u>Objective 3, Policy 4.</u> "Promote building forms that will respect and improve the integrity of open spaces and other public areas."</p>	<p>The building heights and placements in Area 1 and Area 2 would follow the form of Bayview Hill. The northern residential structures in Area 3 would not be stepped into the hillside, and would limit views of Bayview Hill from the east. Landscaping buffers would be installed and designed to visually and functionally separate project structures from Candlestick Point State Recreation Area. A hillside trail would be installed to link Bayview Hill Park to the Recreation Area (see Figure 4, p. 24).</p>

## WEST WIND

The proposed development would substantially decrease winds in the northern and eastern portions of the site. Average summer afternoon winds in pedestrian walkways and entrances to the office buildings in Area 1 and the hotel complex in Area 2 would be reduced from approximately 13 mph to about four mph. The average wind speed at the Town Center Plaza would decrease from 17 mph to 10 mph. Average winds in the three-tier housing complex in Area 3 would be eight mph, less than half the existing average reading. West winds at the proposed hillside restaurant would be gusty and average 19 mph, unchanged from the setting. A 19 mph wind would cause discomfort, blowing hair and clothing, and reduce apparent temperatures at 50°F to about 32°F ("comfort factor"). Average winds in the hillside trails area would be reduced from about 13 mph to about four mph. Because of the funneling of winds between the top of Bayview Hill and the proposed hotel complex, wind speeds would increase by about 21%, to an average of about 16 mph, in this newly formed alley. An upwardly swirling wind would form between the buildings containing the westernmost housing units, just east of US 101. Winds would effectively decrease by about 17% in the eastern portion of the Little Hollywood residential area west of Highway 101. Winds would not change significantly in the existing Executive Park complex, in the proposed Candlestick Point State Recreation Area, within Candlestick Park Stadium, or in the Bayview Hill Park area.

## NORTHWEST WIND

The proposed project would substantially decrease average winds in the northern and eastern portions of the site. Pedestrian walkways and entrances to the office buildings (in Area 1) and to the hotel complex in Area 2 would have average summer afternoon winds of about three mph, with one measurement (just east of OB 4) of zero mph; this area currently experiences 12 mph winds. Average wind speeds in the eastern housing complex would be five mph, compared to the existing 10 mph. The wind at the site of the hillside restaurant would increase from four mph to eight mph, and would be very gusty. South of and between OB 1, OB 2 and OB 3, winds would decrease slightly, from about eight mph to about six mph. Wind speeds would decrease slightly at the western edge of Candlestick Point State Recreation Area. Upwardly swirling winds would be formed in the open areas between the office/housing structures on the northwest corner of the site, and in the

Town Center Plaza. Changes in winds and wind directions at the Bayview Hill Park area would be minimal.

#### SOUTHWEST WIND

The proposed development would substantially decrease average wind speeds in the northern and eastern portions of the site, except that the Town Center plaza would experience an increase in summer afternoon wind speeds from 10 to 14 mph. With 14 mph winds, pedestrians would experience unpleasant blowing of hair and dust, and some flapping of clothes. At those speeds, apparent temperatures at 50°F would be reduced to about 36°F (wind chill). Reductions would be less at higher temperatures. Otherwise, pedestrian walkways and office and hotel entrances would have average winds in the range of three to ten mph. Winds would decrease in the eastern housing complex (Area 3) from the present average of about 14 mph to an average of about seven mph. Winds in this eastern portion of the site, however, would be gusty. The hillside restaurant would experience winds of 13 mph with frequent gusts. Winds at Bayview Hill Park would increase from 15 to 18 mph, but would decrease slightly along the south flank of Bayview Hill just north of the site. The development would decrease average winds in Candlestick Park Stadium, from about eight mph to about six mph. The project would have no impact on existing winds around OB 1, OB 2 and OB 3, in the Little Hollywood neighborhood, or in the Candlestick Point State Recreation Area.

#### NOTES - Wind

/1/ This section is based on a study entitled "Wind-Tunnel Studies of the Executive Park," December, 1982, by Dr. Bruce White, for Environmental Science Associates, Inc. All of the text of that study, except for a description of the wind tunnel facility, calculation sheets and wind-flow diagrams, has been fully incorporated into the setting, impact and alternatives discussion of this EIR. The conversion of wind speed ratios to average wind speeds was conducted by Environmental Science Associates using average summer afternoon free-stream wind speeds derived by Dr. White. A copy of the report is on file and available for public review at the Office of Environmental Review, 450 McAllister St., 5th Floor. Dr. White is Associate Professor of Mechanical Engineering at the University of California at Davis. His involvement with this project was independent of the university.

/2/ The analysis included: 1) flow visualization tests, which placed a continuous stream of smoke at various locations to determine wind directions; and 2) hot wire anemometer measurements of wind speed ratios and turbulence intensities at 42 locations on and adjacent to the project site.



## D. TRANSPORTATION, CIRCULATION AND PARKING

### CONSTRUCTION TRAFFIC

Transportation impacts from construction activities are caused by: increased local truck traffic either hauling excavation materials away from the site or delivering construction materials to it; increased traffic from construction workers driving to and from the site; and construction workers parking in the site vicinity. For each of the eight phases of project construction (see Table 1, p. 27) there would be six stages of construction activity (site clearance, excavation, foundation, structure, exterior finishing, and interior finishing)./1/ During each stage of construction activity the number of workers on-site would vary as would the number of daily truck trips. The stages of construction activity, the number of weeks of total construction during each stage, and the average number of truck trips per day during each stage are shown in Table 5, p. 80. The total truck travel over the 10 year construction period would be about 60,800 truck trips.

Site excavation during Phase One would account for about 35,000 of the total truck trips during the ten-year construction period. About three percent of the excavated material (about 1,250 truck trips) would be emplaced on-site while the rest of the excavated material would be hauled to Candlestick Point State Recreation Area (adjacent to the site), the Southern Pacific Baylands development areas in Brisbane, or other disposal sites farther south of the project site on the Peninsula. Candlestick Point State Recreation Area would be accessible via the project street system and Harney Way. Trucks hauling to the Baylands areas in Brisbane would be expected to use Alana Way. (Access to the Baylands areas is available at the intersection of Alana Way and Beatty Ave.) Otherwise trucks would probably use Alana Way, Beatty Ave. and Tunnel Ave. south of Beatty Ave. If a disposal site farther south on the Peninsula is used, trucks would use US 101. About 85% of the excavation for the project would occur during Phase One; average truck volumes would be about 135 trips per day. Excavation subsequent to Phase One would be minor grading at each building site, which would generate truck travel as shown in Table 5, p. 80.

Shortly before the start of construction, the project contractor and the Department of Public Works would make the determination of haul truck routes in order to consider traffic conditions occurring at the time of project construction. Factors considered in

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TABLE 5: CONSTRUCTION ACTIVITY STAGE FOR EACH BUILDING  
CONSTRUCTED

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<u>Construction Activity Stage</u>	<u>Weeks of Construction Time*</u>	<u>Average Daily Truck Round Trips</u>
Site Clearance	4.5-6.5	10
Excavation**	7-11	11
Foundation	4-6	10
Structure	15-21	10
Exterior Finishing	11-16.5	10
Interior Finishing	11-16.5	5

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\* The number of weeks of construction time would vary for each of the eight phases of project construction (see Table 1, p. 27, for phasing.)

\*\* Excavation at each building site prior to construction, which represents about 15% of the total excavation; 85% of the excavation is proposed to be carried out during Phase One (see discussion on p. 79).

SOURCE: Williams & Burrows Inc., General Contractors

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determining an appropriate route include concurrent construction activities along potential routes, streets known to be hazardous, street engineering specifications, intersection geometrics, and sensitive land uses. The contractor would meet with the Department of Public Works to determine a route that would minimize the impacts of construction truck traffic. Blanken Ave. has a truck restriction in effect and would not be used as a haul route for project construction.

Construction of different phases of the project could overlap. During the periods of overlap, construction impacts would be greater than during the periods when only one phase (building) would be constructed. Individual phases of project construction would require between 13 and 18 months to complete./2/ The proposed construction schedule indicates that for four out of the eight phases, site clearance would overlap with interior finish work. Interior finishing generates fewer truck trips than site clearance activities

(see Table 5, p. 80). Therefore, concurrent interior finish work would not increase substantially the effect of truck traffic caused by excavation or site clearance.

The impact of construction traffic on the local street system would vary as the project phases are completed. The magnitudes of construction effects would be greatest for Phase One because of the excavation work. The effects for Phases Two through Eight would be substantially reduced from the Phase One effects. The effects from individual phases would not differ substantially among Phases Two through Eight. There would be few people on-site when Phase One construction begins and consequently few people would be exposed to the most substantial effects of excavation haul traffic. During the last phases (Phases Five - Eight) of construction, the office, retail and hotel uses of the project would have been completed and most likely occupied. Consequently, construction traffic would affect a greater number of people during Phases Five through Eight of development. However, the total traffic from any one phase of construction during Phases Five - Eight would not be substantial.

The impact of construction truck traffic would be a slight lessening of the capacities of access streets and haul routes because of the slower movements and large turning radii of the trucks. Truck travel on US 101 would impede traffic during peak periods (both morning and evening). During off-peak periods (i.e. 9:00 a.m. to 4:00 p.m.), vehicular traffic in the project vicinity would be light and, consequently, truck traffic would have less of an effect on traffic operations during these time periods. During Phases Five through Eight of development activity, truck traffic during peak hours could be an impact as the local street system would be operating close to capacity and the freeway would be at capacity during peak hours. Traffic flow under near-capacity and capacity conditions is unstable and subject to momentary stoppage. The effect of construction trucks on traffic flow for near-capacity and capacity conditions would be an increase in the number of and length of stoppages, which have the potential to cause operations to degrade into jammed conditions. However, there would be an average of one truck trip per hour for construction during Phases Five - Eight (see Table 5, p. 80) which would not have a substantial effect on traffic operations.



## TRAVEL DEMAND

### Project Demand

For estimation of travel generated by the land uses proposed for the project, a trip generation/distribution/assignment process was used. Assessment of the project travel demand has been made on the assumption that the project would be fully constructed and occupied (i.e. buildout conditions) by 1995. The trip generation rates used to estimate travel demand from the project are from standard references./3/

The trip generation rates from standard references assume each of the proposed uses would be constructed on an isolated site and thus, all of the trips would be external to the site; they do not account for internal trips within a mixed-use development. It is very likely that some of the trips to the proposed retail and restaurant uses would be generated from on-site office, residential and hotel uses as well as from off-site uses. Therefore, the standard reference rates were adjusted to account for trips among uses within the project site which do not generate any off-site trips. To prevent double counting of trips that would be generated from on-site uses, an estimate of the trips that would be internal to the project was made. For the estimate of internal trips, office travel and residential travel were categorized by purpose (home-to-work, shopping, other) and an analysis of overlapping trip purposes was made. (See Appendix D, p. 216 for further discussion of trip generation.)

Project land uses in 1995 would generate about 24,100 total person trip-ends per weekday, of which about 3,800 would be internal to the project site. A person trip-end is a one-way trip to or from the site by one person either walking, driving or riding. Each trip has two trip-ends. During the p.m. peak hour (which in the site vicinity would occur between 4:00 p.m. and 6:00 p.m.), the project would generate about 3,200 external person trip-ends, which would be split between about 800 pte inbound (to the site) and 2,400 pte outbound (away from the site).

A questionnaire was distributed to employees of OB 1 and OB 2 in October 1982. The purpose of the questionnaire was to determine where the employees live, how they get to and from work, where automobile users park, time of work arrival and departure, and

transit use. (Appendix D, pp. 213-216) contains a discussion of the survey results and the questionnaire used.) As there are only office uses (no residential) currently on-site, the survey results are applicable only to future trips generated from the proposed office uses. To estimate modal split (percent of travel using transit, auto, etc.) and travel patterns for the proposed residential uses, 1980 census data for tracts in the site vicinity were used to approximate the travel behavior of future Executive Park residents./4/

On the basis of the October 1982 survey results and the 1980 Census data, the EIR analysis assumes that approximately 10% of the office work trips (employees traveling to or from the office portion of the project) and 30% of the residential work trips (residents of the project traveling to or from off-site employment) would occur on transit; about 90% of the office work trips and 60% of the residential work trips would be in automobiles; and about one percent of the office work trips and about ten percent of the residential work trips would be made by walking, bicycle or other non-motor-vehicle modes. The external travel to the hotel, retail and restaurant uses was assumed to be primarily by automobiles, with fewer than 1% of these trips occurring on transit. The low transit use by existing employees is a product of the low level of transit service to the project site. As the employment intensity increases on the project site, transit service to the site would be expected to increase and a greater percentage of project residents and employees would be expected to use transit (i.e. shift from driving autos to riding transit). Thus, projecting the existing low level of transit use unchanged into the future could be construed as a "worst case" analysis for automobile traffic generation.

The project in 1995 (buildout conditions) would generate about 16,700 vehicle trip-ends (vte) per day, of which about 2,700 (16% of total vte) would occur during the p.m. peak hour (an hour between 4:00 p.m. and 6:00 p.m.). A vehicle trip-end is a one-way trip to or from the site by an automobile or truck. Assignment of the vehicular traffic to the street and freeway system was made based upon the October 1982 survey results, the census data and estimates of the market area for the hotel, retail and restaurant uses.

### Cumulative Development

Three levels of cumulative development have been analyzed: the approved but not-yet-constructed development on the project site (OB3 and OB4); development

proposed in Brisbane by Southern Pacific Development Company that would use the local street system in the project vicinity; and development elsewhere in the region that would add traffic to the US 101 freeway in the project area.

On-Site. Two office buildings (OB 3 and OB 4) and a restaurant (immediately south of Alana Way) are approved for the area south of Executive Park Blvd. North. On-site cumulative development would generate about 3,900 weekday person trip-ends; peak hour generation would be about 760 pte. The on-site cumulative development would generate about 3,000 vehicle trip-ends per day (about 600 peak-hour vte). The on-site cumulative development would affect the same portions of the local street system and the freeway system as would the project.

Local. Southwest of the site (across the freeway) in Brisbane are two developments, proposed by Southern Pacific Development Company: the Bayshore Office Park and the Baylands Development Area. These two developments would affect both local street operation and freeway conditions in the project area. The proposed Southern Pacific projects in Brisbane would generate about 42,000 vte per weekday (about 5,900 peak-hour vte).<sup>/5/</sup> Because the Brisbane projects would have access to freeway ramps at Sierra Point (about three miles south of the project), about 25% of the trips from the development in Brisbane (10,800 vte daily; 1,500 vte peak hour) would use the freeway and local streets in the project vicinity.

Regional. There are two components to the regional cumulative development: the Bayshore Freeway Corridor and Downtown San Francisco. The Metropolitan Transportation Commission (MTC) has identified 50 developments proposed, approved and under construction in the Bayshore Freeway Corridor (US 101 from the San Francisco / San Mateo County line to the City of Santa Clara). If approved and constructed, these 50 developments would potentially add traffic to the section of US 101 near the Harney Way interchange in the project vicinity.<sup>/6/</sup> The 50 developments would generate about 240,000 vte per weekday (about 45,000 peak-hour vte) throughout the entire Bayshore Freeway Corridor.<sup>/6/</sup> The 1975 travel data contained in the MTC report show that about 10% of the corridor trips would occur in the project vicinity.

The second regional component of future travel on US 101 would be generated by 18.4 million sq. ft. of office space proposed, approved and under construction in downtown



San Francisco. Appendix D, Table D-3, p. 219 summarizes the total square footages of the proposed developments in the Bayshore Corridor and in downtown San Francisco. Travel to and from the Peninsula to proposed office developments in downtown San Francisco would generate an additional 10,200 vte per day (about 2,100 peak hour vte) on the freeway segment in the project vicinity.

The impact of cumulative development has been assessed on the assumption that all of the proposed cumulative development is built and fully occupied by 1995. Travel from the cumulative development has been assumed to continue to have the existing modes of travel (modal split). As congestion on the freeway system increases, motorists may shift to ridesharing or transit, which would decrease the percentage of auto use in the modal split. Thus, assuming no change in auto use is a "worst case" analysis. Similarly, assuming that all of the proposed development actually occurs by 1995 is a "worst case" analysis for traffic congestion. The market for commercial space has economic constraints that could effectively limit the amount of new space occupied each year and thus, not all of the proposed developments would necessarily be completed in 1995.

Long-range planning by the regional planning entities, and planning and implementation by operating agencies, such as the Metropolitan Transportation Commission and Muni, have enabled the Bay Area to absorb the growth that occurred between 1960 and 1981. The continued effectiveness of these agencies in guiding and managing growth depends on their ability to anticipate and prepare acceptable transportation policies for future regional needs, and on the capability of the transportation operating agencies to implement policies.

### TRANSIT

Because of the small amount of floor area currently occupied at the site, transit service to the site is provided by one Muni route, the 56-Rutland. Transit service to and from downtown San Francisco is provided by Muni on Bayshore Blvd. about one mile west of the site. The 56-Rutland provides feeder services to these downtown routes. Most of the Muni routes to and from downtown provide more capacity (more frequent operation) in the peak downtown commute direction (into the downtown in the morning, out in the evening) than at other times. This is the reverse of the need for work trips to and from the project site. SamTrans routes, which operate on the freeway and on Bayshore Blvd., do not have

any stops in the project vicinity. The Bayshore SP station is located on Tunnel Ave. at Scavenger Rd., about one-half mile west of the site. Muni currently provides no service between the SP station and the site. The 56-Rutland Muni route, which serves the project site, operates three buses per hour during the p.m. peak period between 4:00 p.m. and 6:00 p.m. Recommended maximum capacity would be about 200 riders per hours./7/ The 56-Rutland route operates only between 7:00 a.m. and 12:00 midnight; no transit service is provided to the site between midnight and 6:00 a.m., which would have the effect of minimizing the amount of early morning transit use to and from the site.

No definite improvement programs have been implemented to increase transit service to the site. Until the level of activity at the project site increases substantially, transit improvement programs will, most likely, not be instituted. Project transit travel percentages to and from the site have been assumed to be the same as the current transit use on the site and in the project vicinity - about 10% of the office work travel and 30% of the residential work travel.

On-site cumulative development would thus generate about 230 person trip-ends (pte) on transit per day (about 50 peak-hour pte). The project would generate about 1,600 pte on transit per day. During the p.m. peak hour, the project would generate about 250 pte on transit, of which 75 would be inbound (toward the site) and 175 would be outbound. The on-site cumulative and project transit travel could be assumed to use all of the remaining capacity on the 56-Rutland route.

Primarily because of the additional development proposed under the Executive Park Development Plan Amendment, Muni is studying a plan to re-route service in the project area by switching the route designations for the 29-Sunset and 56-Rutland lines (see Figure 9, p. 47). The 29-Sunset serves the residential areas northwest of Candlestick Park Stadium. The re-route would provide service on the 29-Sunset between the site, the Bayshore SP station and the Balboa Park BART station. The re-route would require a street extension near Sunnydale Ave. and a new crossing of the SP-mainline tracks that would be restricted to Muni use only. After the re-route, the site would have direct Muni services to both SP and BART and to transfer points with downtown routes. The 56-Rutland would be re-routed from portions of the existing routing to provide feeder service between Bayview Hunters Point and the Bayshore SP station. After the

re-routing, the 56-Rutland would not provide service to Executive Park or to the Little Hollywood neighborhood. No change in route capacity on the 29-Sunset is proposed as part of the plan. However, transit capacity would increase at the project site as the 29 operates more frequently (five buses per hour) than does the 56 (three buses per hour). If no further development were proposed for the site (beyond OB 4), Muni would not implement the reroute as it believes that there would not be sufficient demand from the existing and approved development to warrant the effort./8/ Any rerouting proposal that would serve the project would require public hearings and approval by the San Francisco Public Utilities Commission (PUC).

The October 1982 employee questionnaire showed that about three percent of the respondents used A-C Transit or Golden Gate Transit bus service from their homes to downtown San Francisco. Questionnaire data indicated that one firm located at the site provides shuttle service between the Executive Park site and downtown. Without a shuttle service, travel time between the closest downtown A-C Transit and Golden Gate Transit stops and the site would be too lengthy for such commutes. Therefore, no project use of A-C Transit or Golden Gate Transit was assumed. Similarly, no use of SamTrans and SP was assumed, as the walking distance (at least one-half mile) to the site from the nearest stops would inhibit use of these two systems by project commuters and residents. If convenient service to the site were available from SamTrans or SP, about 20% of those employees currently driving to the site indicated that they would use the transit service.

### PEDESTRIANS

The project area is isolated by the freeway and topographic constraints. Minimal pedestrian travel (less than 1% of the total) has been assumed to occur outside of the project area. However, pedestrian travel has been assumed to occur among land uses on-site. The development plan indicates that primary pedestrian activity is proposed along Thomas Mellon Dr. and in the Town Center plaza (see Figure 2, p. 22). This plaza is expected to attract pedestrian travel from office and retail uses which would be greatest during noon hours. Pedestrian travel during commute hours would be expected to be to and from parking facilities and transit stops. Pedestrian travel on-site outside of commute periods would be from office and residential uses to the retail/restaurant uses on-site.



## TRAFFIC

### Project Traffic

The project would generate about 16,700 vehicle trip-ends (vte) per day, of which about 2,700 would occur during the p.m. peak hour. The October 1982 employee survey indicated that 80% of the automobile traffic has origins or destinations either north or south on US 101 and that 20% of the traffic uses local streets for San Francisco origins or destinations.

### Local Streets and Intersections

The site has been designed to provide vehicular circulation (see Figure 2, p. 22) on Executive Park Blvds. West and East, the North Loop Road and Alana Way. Executive Park Blvd. North and Thomas Mellon Drive between the Blvd. and the North Loop road would provide pedestrian and transit access. An extension of Executive Park Blvd. West between Alana Way and Harney Way would facilitate traffic circulation for the project and would improve access to the northbound freeway ramps.

Streets in the project vicinity would experience increases in volumes as a result of the project, on-site cumulative development at Executive Park, and local cumulative development in Brisbane. Most (80%) of the traffic would use Alana Way, Harney Way and Beatty Ave. to travel between the US 101 ramps and the site. Table 6A, p. 89 shows the relative increases in traffic volume on local streets from the project and cumulative development.

Although the project street system has been designed to minimize effects on Blanken Ave., the connection with Blanken Ave. would be maintained similar to its present condition. Thus, some project traffic would be expected to use Blanken Ave. if Executive Park Blvd. West, Alana Way or Harney Way were to become congested. On the basis of the assumption that half of the project traffic assigned to use local streets would use Blanken Ave. (and half would use Alana/Beatty/Tunnel), an increase of 1,900 vehicles per weekday (weekend increases would be about 400 vehicles per day) would be expected on Blanken Ave. Peak-hour increases would be about 300 vehicles per hour. As shown in Table 6A, p. 89, addition of the project traffic on Blanken Ave. would expand volumes to 3,900 vehicles per weekday (500 peak-hour vehicles).

TABLE 6A: TWO-WAY TRAFFIC VOLUMES (VEHICLES)

<u>Street</u>	<u>Section</u>	<u>Existing</u>		<u>Existing + Cumulative*</u>		<u>Existing + Cumulative* + Project</u>	
		<u>24-Hour</u>	<u>Peak Hour</u>	<u>24-Hour</u>	<u>Peak Hour</u>	<u>24-Hour</u>	<u>Peak Hour</u>
Harney Way	South of Alana	2,210	200	6,020	790	11,690	1,680
Alana Way	West of US 101	2,540	230	7,080	960	16,700	2,470
Beatty Ave.	West of Alana	2,570	230	4,810	460	6,740	760
Blanken Ave.	West of US 101	1,670	150	1,980	210	3,920	510

\* Cumulative development both on-site in Executive Park (OB3 and OB4) and local in Brisbane.

SOURCE: Environmental Science Associates, Inc.

This increase would be within the functional capacity of the street to carry traffic. Functionally, Blanken Ave. can carry two-way volumes of about 2,000 vehicles per peak hour at capacity. The 500 vehicles per peak hour on Blanken Ave. shown in Table 6A would operate in Level of Service A conditions. However, the increase in vehicle volumes would be noticeable to residents. The late Donald Appleyard conducted a study of traffic effects on neighborhood streets (Liveable Streets, Berkeley Press, 1981). The study found that traffic volumes of greater than 300-400 vehicles per hour had the effect of creating a perceived barrier between two sides of a street, thus reducing neighborhood identity. The concept that Appleyard explored was neighborhood perception of traffic. The perception of traffic by neighborhood residents is a subjective judgment made by individuals and varies substantially./9/ Resident perception of traffic does not correlate with the functional capacity of a street, as a street can functionally carry more traffic than residents find desirable. On the basis of the Appleyard data, Blanken Ave., after traffic increases from on-site cumulative development and the project, would be in the light to medium volume category of streets. Even so, residents of Blanken Ave. may perceive the traffic increase as substantial.

Table 6B, p. 91 shows the results of a capacity analysis at key intersections in the project area which would be most affected by project-generated traffic. The street system in the project area has been designed to serve the current low intensity of development in the area east of Tunnel Ave. and south of Little Hollywood. Consequently, it does not have sufficient reserve capacity to serve future traffic from the project and on-site and local cumulative development. As shown in Table 6B under the "without improvements" columns, future traffic increases would overload the existing street system and congest the intersections. To provide adequate traffic access at the development intensity proposed for the project and on-site and local cumulative development, street improvements such as signalization of intersections and widening of roadways would have to be implemented as the project vicinity develops. On the assumption that street improvements (see Section VI, Mitigation Measures, p. 150 and Table 16, p. 151) are built over the next 10 to 15 years of project and on-site and local cumulative development, intersection conditions would be expected to be approximated by the values shown under the "with improvements" heading in Table 6B, p. 91. Under the mitigated condition, the three intersections would be expected to operate at Level of Service D or better during the p.m. peak hour. As indicated in Table 6A, p. 89 and Table 6B, p. 91, the project traffic would represent between 57% and 84% of the peak-hour increase in traffic on local streets and at the intersections shown in Table 6A.

The intersection analysis has been made independently of the freeway analysis. The ability of the intersections to operate as shown in Table 6B, p. 91 would depend upon the ability of the freeway to continue to absorb traffic increases in the peak hour. As the freeway is currently near capacity southbound in the p.m. peak hour (and northbound in the a.m. peak hour), it would not be possible to add all of the future traffic onto the freeway in the peak hour in the peak direction and maintain traffic flow. It is likely, therefore, that while all of the project and on-site and local cumulative traffic increases would occur during the peak period, not all of the traffic assumed to occur in the peak hour would actually occur in that hour. However, the intersection analysis has been conducted assuming all of the peak-hour project and on-site and local cumulative traffic would occur in the freeway peak hour (i.e., "worst case" analysis). Freeway conditions are evaluated in the following section.



TABLE 6B: EXISTING AND 1995 VOLUME-TO-CAPACITY (V/C) RATIOS AT INTERSECTIONS IN THE PROJECT VICINITY (P.M. PEAK HOUR)

Intersection***	Existing (1983)*		Existing + On-site and Local Cumulative*** Without Improvements		Existing + On-site and Local Cumulative + Project Without Improvements		Existing + On-site and Local Cumulative + Project With Improvements+	
	V/C	LOS**	V/C	LOS	V/C	LOS	V/C	LOS
Alana Way / Beatty Ave. (SB 101 ramps)	0.30	A	0.82	D	1.64	F	0.84	D
Harney Way / Alana Way / Thomas Mellon Dr. (NB 101 ramps)	0.30	A	0.58	A	1.46	F	0.51	A
Alana Way / Executive Park Blvd. West	0.23	A	0.43	A	1.09	F	0.85	D

\* Based upon counts made October 4, 5, 6 and 12, 1982 by Environmental Science Associates

\*\* LOS = Level of Service (see Table D-5 Appendix D, p. 221)

\*\*\* Cumulative development affecting the intersections noted above includes: on-site development (OB 3, OB 4, and a restaurant south of Alana Way); and local development (the Southern Pacific Bayshore Office Park and Baylands Development Area) in Brisbane.

+ See Mitigation, pp. 150-151 for intersection improvements.

SOURCE: Environmental Science Associates, Inc.

### Freeway

On-site cumulative development would generate demand for about 250 vehicle trip-ends (vte) southbound during the p.m. peak hour on US 101 in the project vicinity. Local cumulative development in Brisbane would create demand for about 100 vte southbound on this section of the freeway. Regional cumulative development in downtown San Francisco and along the Bayshore Freeway Corridor if fully developed and occupied would generate demand for about 1,600 vte southbound in the p.m. peak hour on this section of the freeway. The total increase from on-site, local and regional development would be 1,950 vte.

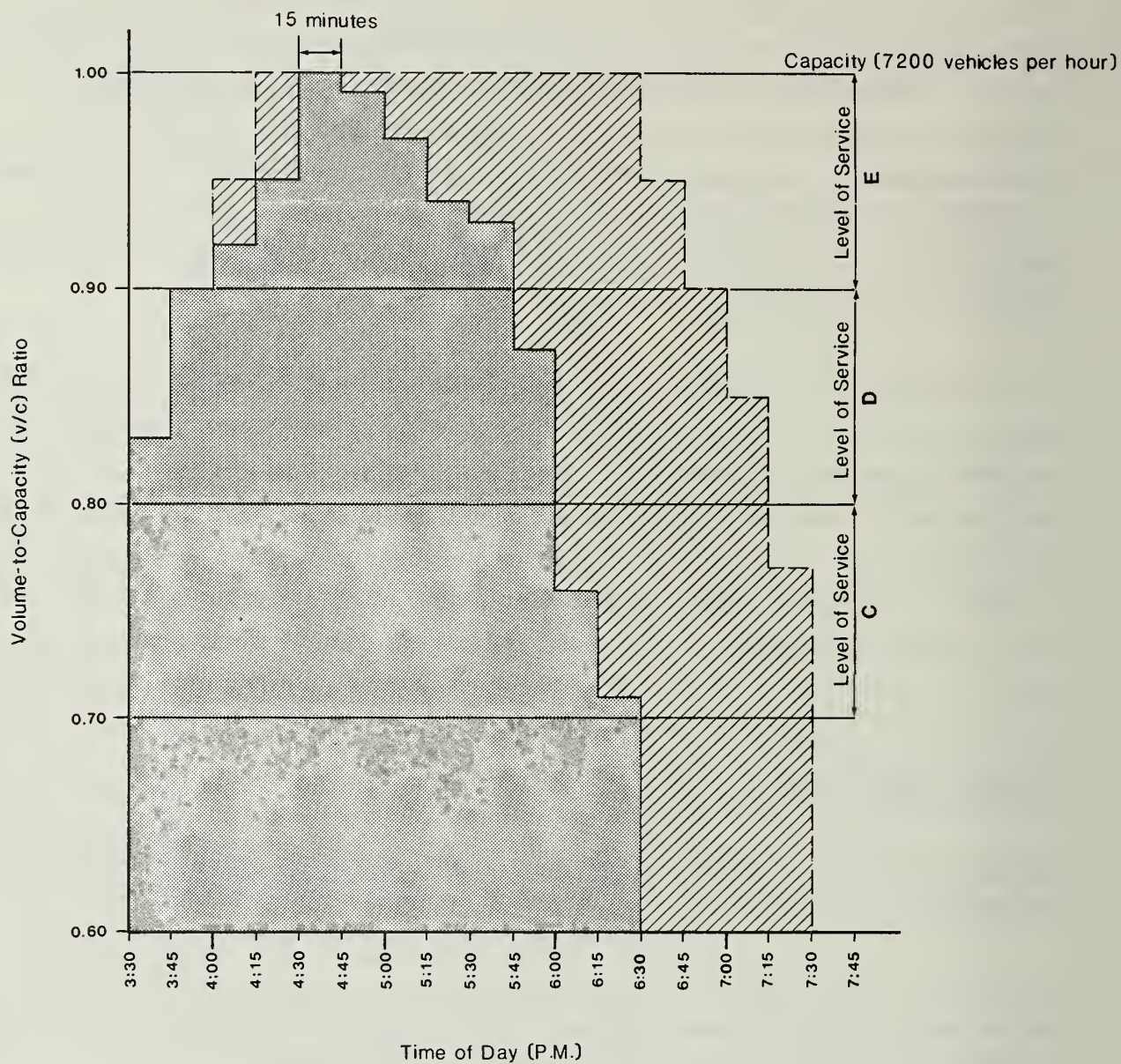
The project at full buildout would create demand for about another 1,000 vte southbound during the p.m. peak hour, for a total increase in demand of about 2,960 vte. The freeway currently carries about 7,100 vehicles per hour southbound in the p.m. peak hour. MTC estimates capacity of this section of the freeway to be 7,200 vehicles per hour in the southbound direction. An increase of 2,960 vte could not be absorbed during the peak hour in the southbound direction of US 101 in the project vicinity. Such an increase would degrade operations from Level of Service E (V/C of 0.99) to F (V/C of 1.40) southbound during the p.m. peak-hour.

In the northbound direction on US 101 during the p.m. peak hour, the freeway currently operates in Level of Service B (V/C of 0.61) which means there is reserve capacity available during the p.m. peak hour. Regional cumulative development in the Bayshore Corridor and in downtown San Francisco would generate demand for about 3,650 vte northbound in the p.m. peak hour. Local development in Brisbane would create demand for about 350 vte and on-site development would add 150 vte for a total increase of 4,150 vte from cumulative development. The project demand would add another 650 vte during that peak hour. Added to the 4,400 vehicles that currently travel northbound in the p.m. peak hour, total cumulative demand (4,150 vte), exclusive of the proposed project, would overload the freeway in the northbound direction, degrading operations to Level of Service F (V/C of 1.19). If the project demand (650 vte) were added to the cumulative demand, the V/C ratio would increase to 1.27 and operations would remain at level of Service F.

Analysis of the p.m. peak hour freeway operations on a 15-minute basis (the shortest time period for which counts were available) shows that in the southbound (most critical) direction in the project vicinity, the freeway currently operates at capacity for only one 15-minute period during the three-hour peak period (shown in Figure 13, p. 93 where the shaded area reaches a V/C ratio of 1.00). However, the freeway currently operates at Level of Service E for about half of the three-hour peak period, as shown in Figure 13 by the amount of time the shaded area is above a V/C ratio of 0.90. Freeway operation at Level of Service E allows speeds of about 35 mph with unstable flow and stops of momentary duration.

In order for the cumulative (on-site, local and regional) and project traffic demand to be accommodated on US 101, p.m. peak traffic use of the freeway in the project area would have to spread to longer time periods. As shown in Figure 13, there is substantial reserve





#### LEGEND

- 1982 Shape of peak period flow
- Estimated distribution over time of existing, cumulative and project traffic.
- Amount of capacity used by existing traffic
- ▨ Additional amount of capacity predicted to be used by cumulative and project traffic increases. (Project represents about 35% of the total increase).

FIGURE 13:

SOUTHBOUND BAYSHORE FREEWAY  
15-MINUTE VOLUME-TO-CAPACITY  
(V/C) RATIOS (WEEKDAY P.M. PEAK PERIOD)

#### SOURCE

ENVIRONMENTAL SCIENCE ASSOCIATES, INC.  
BASED ON DATA FROM THE CALIFORNIA DEPARTMENT  
OF TRANSPORTATION AND THE METROPOLITAN  
TRANSPORTATION COMMISSION



capacity available on US 101 after 6:00 p.m. in the southbound direction in the project vicinity. If the projected demand from existing, cumulative and project development were distributed over time, the freeway in the project vicinity would be expected to operate at capacity for about two hours which would, in effect, spread peak-of-the-peak conditions (currently less than 15 minutes) over two hours of the three-hour peak period. Capacity of this freeway section (that is, the maximum number of vehicles flowing through this section in a given time period), could be described as operations where vehicular speeds average 35 miles per hour and vehicular flows are such that there is little separation distance between individual vehicles; this condition is unstable and may temporarily degrade to Level of Service F. Figure 13 (cross-hatched area) illustrates such a distribution of travel. Analysis shows that similar effects could be expected in the northbound direction in the project vicinity during the p.m. peak hour except that operation of the freeway at capacity would be assumed to occur for less than one hour during the three-hour peak period.

Freeway operations outside the project vicinity would be influenced by the amount of development that would occur in the Bayshore Freeway Corridor and in downtown San Francisco. The MTC Bayshore Corridor Study states that "more heavy impact ... could be anticipated between Foster City and San Carlos during the peak periods north and south of Route 92."/6/ Downtown San Francisco development would be expected to increase traffic congestion on the Bay Bridge and the Golden Gate Bridge. Thus, freeway operations in the project vicinity may be affected by traffic conditions outside the project vicinity. Congestion upstream of the project area on the freeway would meter the freeway traffic flow, which may have the effect of reducing traffic volumes on the freeway near the site. Congestion downstream of the project could cause traffic queues on the freeway to back up into the project area and jam conditions on both the freeway and local streets that serve the access ramps.

The traffic volume data presented in Figure 13, p. 93 and discussed above has been estimated on the basis of travel patterns continuing unchanged into the future. This type of analysis, as described previously (see p. 85), is a "worst case" analysis. Travel patterns (time in which travel occurs and mode choice) are not static; rather, they are dynamic with changes occurring as the result of individual travelers changing time of travel or travel mode. Individual travelers are likely to change travel modes, routes and times of

travel to minimize travel cost and time. Thus, freeway congestion is a primary cause of changing travel patterns as individual motorists respond to increased congestion by attempting to avoid the most-congested (time-consuming) periods by moving to other routes, changing times of travel or shifting to other modes.

Figure 13, p. 93, is an example of one possible response to increased congestion on the freeway in the site vicinity. To achieve the conditions shown in Figure 13, motorists would have to adjust their times of start of travel from 15 minutes to an hour so that demand on the freeway would not exceed capacity. No change in modal split would be necessary. Because of this shift over time, Figure 13 presents only two conditions - existing and existing plus all future (including the project) traffic. To get from existing conditions to the future conditions, some of the existing traffic would shift to earlier or later travel times. Thus, accurate prediction of the time periods when project traffic would use the freeway is not possible.

An alternate reaction to the freeway congestion would be for motorists to shift to ridesharing or transit use, which would mean a change in the modal split and increased transit ridership over that discussed on pp. 85-87. Also, motorists could use parallel freeways and surface streets to avoid the congestion on US 101, which would mean an increase in traffic on the alternate (parallel) routes. Bayshore Blvd., Third St. and I-280 are routes parallel to US 101.

The most likely scenario is a mixture of the three conditions mentioned above. Time of travel (length of peak period), travel mode and route used would occur to create an optimum condition that would allow tolerable conditions overall. This process would occur gradually over time unless influenced by incentive programs designed to increase use of specific modes (e.g., installing carpool / vanpool lanes on the freeway, subsidizing transit fares for employees) or to alter times of travel (e.g., implementation of flex-time or staggered work hours).

### PARKING

Approximately 3,900 parking spaces would be provided by the proposed development plan amendment. About 5,100 total spaces would be provided for the entire Executive Park

site. Of the total amount, an existing 555 at-grade spaces provide parking for OB 1 and OB 2; another 645 spaces would be constructed at grade to serve OB 3 and OB 4. The remaining 3,900 spaces would be provided in the office / housing / parking structures and would serve the uses of the proposed Development Plan Amendment, distributed as follows (see also Table 1, p. 27):

Office:	2,720
Housing:	750
Hotel/Meeting:	360
Retail/Restaurant:	80
<u>Total:</u>	<u>3,910</u>

Total parking requirements for the site would be about 4,200 parking spaces, of which 3,000 spaces would be required for the proposed development plan amendment (City Planning Code, Section 151). An additional 2,000 spaces could be provided as accessory parking (Section 204.5), for a maximum allowable ceiling of about 6,000 spaces for the Executive Park site./10/

Standard parking demand rates have been used to estimate peak parking demand for the Executive Park site./11/ On the basis of standard rates, the total, (unadjusted) peak parking demand for the site would be about 6,800 spaces, including the existing (OB 1 and OB 2) and approved (OB 3 and OB 4) buildings on-site and proposed new uses. With an adjustment of the total demand for overlapping travel (i.e. trips internal to the site that would not generate parking demand) and for transit use, which is not part of the standard rates, the overall peak parking demand would be about 5,400 spaces. This amount would exceed the 5,100 total spaces provided at the Executive Park site, by 300 spaces. The analysis does not, however, take into account the different times that peak parking demand occurs for different land uses. For example, office uses have peak daytime parking demands and restaurant and residential uses have peak nighttime parking demands. If parking were allowed to be shared among uses, the supply would be adequate to meet the actual peak parking demand. Shared parking among different project uses could be allowed with a variance under the City Planning Code.

Because of the uncertainties (amount of parking provided, future automobile use, etc.) involved in the parking analysis, it is not possible to predict accurately the amount of surplus parking demand (if any) that might occur. If surplus parking demand were to occur, the overflow might be expected to park on-street in the project vicinity or to park illegally in the on-site parking areas. Under such conditions, some parking demand from the project might use Blanken Ave. However, because of the distance from on-street



parking on Blanken Ave. to the project site (about 800 feet) project parking use of Blanken Ave. would be expected to be limited. If auto travel to the site is less than predicted in the future, overall parking demand would be diminished, with a concurrent decrease in overflow demand.

### OFF-STREET FREIGHT LOADING

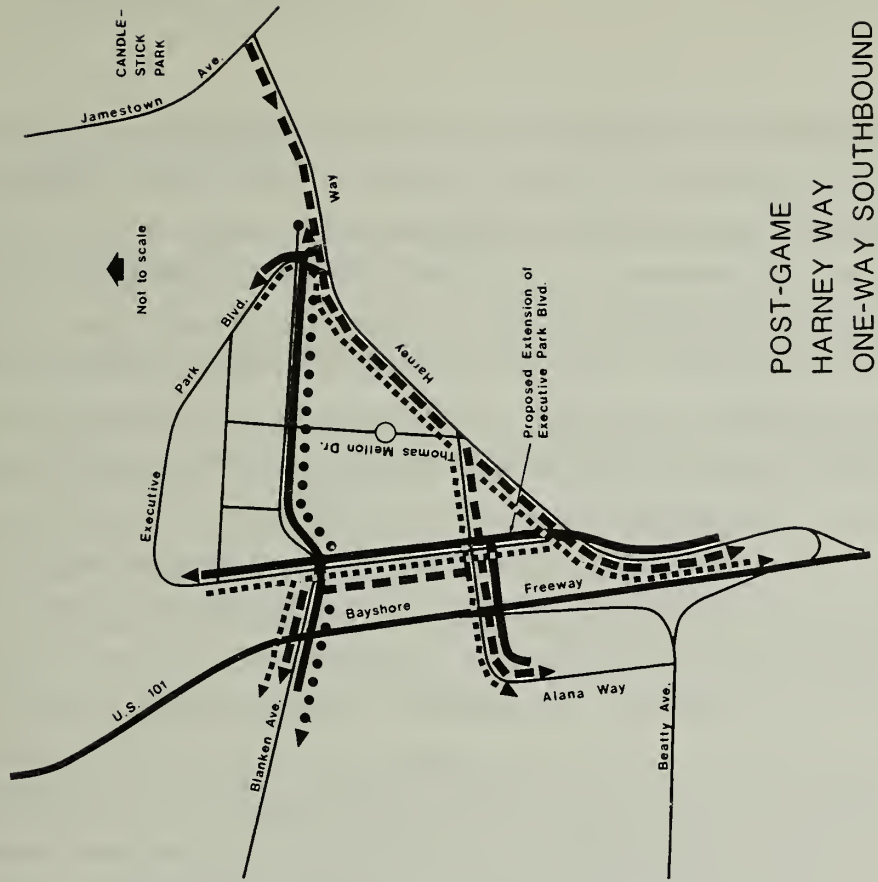
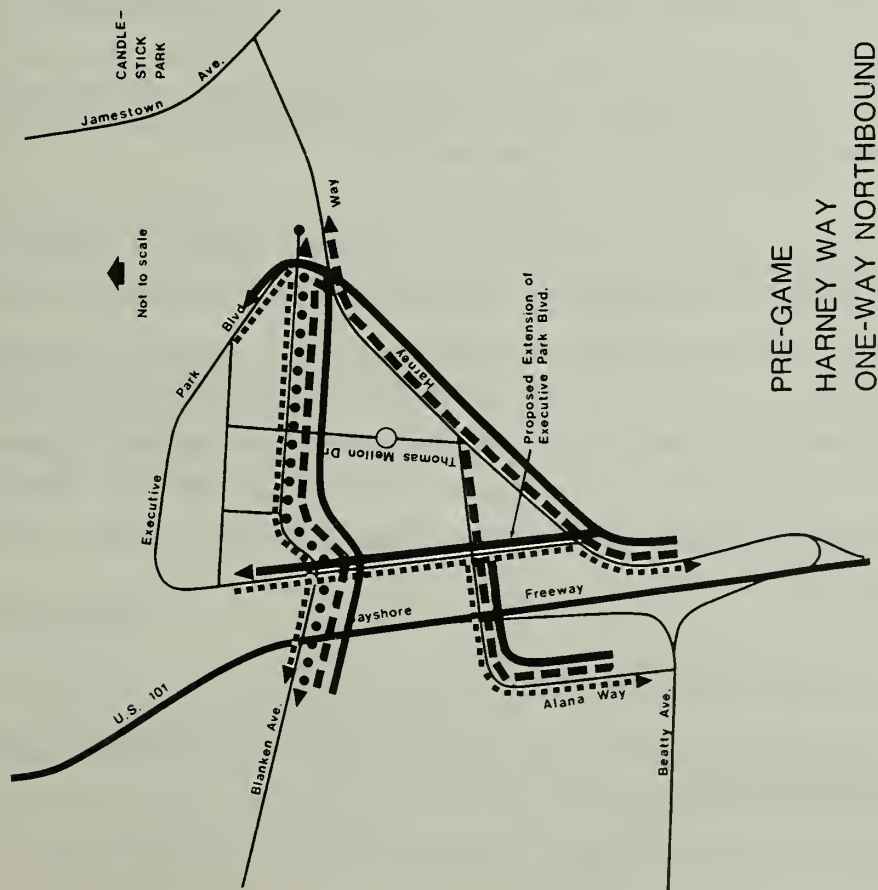
City Planning Commission (CPC) Resolution 9286 (January 21, 1982) suggests that the uses proposed under the development plan amendment provide (as mitigation) approximately 18 loading spaces.<sup>/12/</sup> Each off-street loading area would have to accommodate, at a minimum, standard single-unit trucks (loading bays would be 12 feet by 35 feet with a minimum vertical clearance of 14 feet). Because the proposed project is at a development plan (conceptual) level of detail, the precise locations and dimensions of off-street loading spaces have not yet been determined. Conceptually, loading areas for portions of the project along Executive Park Blvd. North are anticipated to be located off the garage access roads from Executive Park Blvd. North. Loading areas for project uses to be located north of Executive Park Blvd. North would be accessible off the loop road (see Figure 2, p. 22 for roadway design).<sup>/13/</sup>

### IMPACT OF EVENTS AT CANDLESTICK PARK

During pre-event and post-event periods for events at Candlestick Park, Harney Way operates as a reversible one-way street. During events at Candlestick Park, access between the Executive Park site and the northbound freeway ramps is disrupted. As part of the proposed development plan amendment, the sponsor would extend Executive Park Blvd. south of Alana Way to intersect with Harney Way to provide an alternative route to the northbound ramps (see Figure 14, p. 98). As shown in Table 6B, p. 91, the extension of Executive Park Blvd. would also be needed to accommodate future project and cumulative traffic increases.

In Figure 14, principal traffic routes are shown for pre-event and post-event conditions. As stated in the Report on Candlestick Park Access prepared by the San Francisco Department of Public Works:

"Access to Executive Park should not be any more difficult . . . than it is at present except for the amount of pre-game and post-game congestion on Harney Way that is encountered, as measured by post-game clearance times."<sup>/14/</sup>



#### LEGEND

- ● ● ● TRANSIT
- ▲ IN EXECUTIVE PARK
- ▲ OUT EXECUTIVE PARK
- ▲ CANDLESTICK IN
- ▲ CANDLESTICK OUT

SOURCE  
SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS

FIGURE 14: TRAFFIC CIRCULATION DURING  
EVENTS AT CANDLESTICK PARK

As the traffic from the project and on-site and local cumulative development would cause p.m. peak-hour intersection operation in the Level of Service D range (with mitigation), any traffic to Candlestick Park games during peak hours would disrupt normal traffic operations in the project area. Consequently, worse traffic impacts would occur on days when events at Candlestick Park either began or ended at times that would coincide with the p.m. peak hour of street and freeway traffic in the project vicinity. On the basis of the proposed 1983 Giants schedule of events at Candlestick Park, this condition would occur approximately 8 times a year. Out of the approximately ten 49ers football games that are played at Candlestick Park Stadium each year, only Monday and Thursday night games would conflict with peak-hour traffic. It is not possible to predict how many night games would occur on Monday or Thursday nights, as the night-game schedule is dependent upon the seasonal contract arrangements between the National Football League (NFL) and the television networks. (It is possible that a particular Candlestick season would not have any night games.) If it were assumed that no more than two games per year were played at night, then there would be an average of ten days per year that Candlestick Park baseball plus football traffic could overlap with peak hour project traffic. About 40 games per year are played at Candlestick Park on weekdays at times that typically would not conflict with peak hour traffic. Project traffic, outside of peak hours, is expected to be less than during peak hours. Intersection operations would be expected to be in the Level of Service B to C range (with improvements); consequently, Candlestick Park traffic during off-peak periods would be expected to affect traffic operations much as it does at present during off-peak periods.

On days on which events take place at Candlestick Park, parking areas surrounding the stadium reach capacity and very often parking overflows into nearby neighborhood areas. Portions of the Executive Park parking facilities are currently used as overflow parking for Candlestick Park events. Use of parking facilities at the site is on a pre-arranged basis for weekends only. Once the project is sufficiently developed to use all the on-site parking provided, the arrangement for overflow Candlestick parking will be discontinued.<sup>/15/</sup> Discontinuing overflow parking would displace parkers to other areas in the vicinity of Candlestick Park.

NOTES - Transportation, Circulation and Parking

/1/ The data for the construction period are from Williams & Burrows, General Contractors, letter, September 8, 1982.



/2/ Proposed phasing was provided by Hellmuth, Obata, and Kassabaum, Architects, letter, September 3, 1982.

/3/ Trip generation rates are from CalTrans District 04, 1966-1981, Report on Trip End Generation Research Counts (Vol. 1-13).

/4/ 1980 Census Mobility and Travel-to-Work Characteristics, Census Tracts 6002, 6003 in Daly City, ABAG Regional Data Center, 1983.

/5/ Southern Pacific Development Company, July 1982, Proposed Specific Plan for Bayshore Office Park and Baylands Development Area, Brisbane, California.

/6/ Metropolitan Transportation Commission, December 3, 1982, Travel Impacts of Proposed Development on the Peninsula Along Route 101.

/7/ San Francisco Municipal Railway, June 1982, Guide to Frequency of Service.

/8/ Anthony Bruzzone, Transit Planner, San Francisco Municipal Railway (Muni); telephone conversation, August 8, 1983.

/9/ Appleyard's data shows that residents of several streets that have nearly identical volumes (fewer than 2000 vehicles per day) have a wide spread of perceptions (percent annoyed by traffic ranged from 10% to 50%. Conversely, Appleyard found that residents on streets with volumes as high as 30,000 vehicles per day were reporting similar percentage annoyed (30%-50%) as residents on the lighter-volume streets.

/10/ City and County of San Francisco, 1979, Planning Code, Article 1.5, Section 151, p. 60 and Article 2, Section 204.5, p. 88.

/11/ Parking rates from Institute of Transportation Engineers, 1982 Transportation and Traffic Engineering Handbook, Second Edition, Table 21-1, p. 647.

/12/ City and County of San Francisco, January, 1982, Exhibit A, Off-Street Freight Loading and Vehicle Space Requirements and Guidelines.

/13/ Hellmuth, Obata and Kassabaum, Architects, letter, September 3, 1982.

/14/ City and County of San Francisco, Department of Public Works, October 1981, Report on Candlestick Park Access.

/15/ James Smith, Property Manager, San Francisco Executive Park, telephone conversation, July 6, 1983.

## **E. AIR QUALITY**

### **SHORT-TERM CONSTRUCTION IMPACTS**

Excavation and other construction activities would generate particulates (dust) that would affect local air quality. The State 24-hour standard of 100 micrograms per cubic meter

for particulate would probably be violated several times in the immediate project vicinity during the site clearance and excavation for each phase of construction. Large-sized particulates (greater than 30 microns in diameter) are characteristic of construction particulates. These large-sized particulates settle out of the atmosphere rapidly with increased distance from the site. As a result, dust would fall on cars, streets, sidewalks and other outside surfaces within a 200 to 800 ft. radius of a project construction site. Dustfall would not be expected to occur in Little Hollywood or Visitacion Valley neighborhoods. The average construction phase would be completed within 15 months. Site clearance would require an average of five months to nine months during each construction phase. Except to persons with respiratory problems, construction particulates are more of a nuisance than a hazard. Blowing dust may annoy people in the site vicinity when winds exceed 12 miles per hour. If housing proposed for construction during Phase Eight were to be developed at an earlier phase, construction particulates could be a nuisance or hazard to those residents already living within the project area.

If used in construction, asphalt, oil-based architectural coatings, and paints would emit hydrocarbons. Hydrocarbon emissions from these sources are controlled by the Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rules 3 and 15, respectively. Diesel-powered construction equipment would emit (in decreasing order by weight) nitrogen oxides, carbon monoxide, sulfur oxides, hydrocarbons, and particulates.

### LONG-TERM OPERATIONAL IMPACTS

Once the project is completed and occupied, the major contributor of air pollutants would be emissions from project-generated traffic. Total daily project-related vehicular emissions, throughout the air basin, of carbon monoxide (CO), hydrocarbons, nitrogen oxides, sulfur oxides, and particulates were projected. These emissions are compared with projected regional emissions in Table 7, p. 102. The project would generate less than one-tenth of one percent of total regional emissions.

An analysis of roadside carbon monoxide concentrations at full project buildout, for worst-case dispersion meteorology, was performed using the CALINE 3 (California Line Source Dispersion Model) computer program. A network of 18 road segments (including US 101) and 12 receptor locations in the project vicinity was established. For worst-case

TABLE 7: PROJECTED POLLUTANT EMISSIONS OF THE PROJECT IN 1995 (tons/day) COMPARED TO PROJECTED REGIONAL EMISSIONS

<u>Pollutant</u>	<u>1995 Projected Pollutant Emissions (tons/day)</u>	
	<u>Project*</u>	<u>Region**</u>
Carbon Monoxide	2.240***	2,285
Hydrocarbons	0.224***	548
Nitrogen Oxides	0.192***	584
Sulfur Oxides	0.031***	213
Particulates	0.339****	606

\* BAAQMD, 1981, EMFAC-6C Vehicular Emission Factors. Emissions due to natural gas combustion would be negligible for all pollutants.

\*\* Association of Bay Area Governments (ABAG), BAAQMD, MTC, December 1982, 1982 Bay Area Air Quality Plan, p. 53. The region is the nine-county Bay Area Air Quality Management District.

\*\*\* Includes three minutes of idling time per trip.

\*\*\*\* Includes dust generated by vehicular traffic on paved roadways.

SOURCE: Environmental Science Associates, Inc.

purposes, three wind-direction conditions (north, east, and west) were run for each of three emissions scenarios: existing (1982), existing plus 1995 cumulative traffic volumes, and project plus existing and 1995 cumulative traffic volumes. These scenarios do not include traffic from Candlestick Park Stadium events. Candlestick Park Stadium traffic is variable in amount, season and time of day, and therefore has not been included in the detailed intersection analysis or in the computer calculation of carbon monoxide concentrations. Winter evenings (December and January) are the critical times for potential violations of CO standards in the Bay Area. Therefore, Giants baseball games are unlikely to contribute to such violations. There are a maximum of two winter-evening Forty-Niner football games per year, and no evening games in some years; it is therefore unlikely that evening football games coincide with worst-case meteorology.



The results are summarized in Table 8, p. 104. The highest predicted CO concentration for the three wind conditions is shown. Receptors west of US 101 (Nos. 1-7) experience highest concentrations with the north wind; receptors east of US 101 (Nos. 8-12) experience highest concentrations with the west wind. Predicted concentrations are within the standards for all three scenarios (no violations). The highest predicted concentrations, up to 82% of the standard for the cumulative-plus- project-case, would occur along the west side of US 101 between Blanken Ave. and Alana Way. The largest percentage increase due to the project, 31%, would be along Harney Way between Thomas Mellon Drive and Executive Park Blvd. East.

Full buildout of the project would occur in 1995; air quality is generally expected to improve by 1995 because of lower emissions as the efficiency of the vehicle fleet improves and control strategies of the BAAQMD and California Air Resources Board (CARB) to attain and maintain various standards are implemented. The conclusions of the project-specific air quality analysis above would remain valid at full buildout of the project in 1995 unless current emission standards change or development and/or traffic levels change.

In summary, implementation of the project would add to local and regional accumulations of hydrocarbons (precursors of ozone), CO, particulates, nitrogen oxides (precursors of ozone), and sulfur oxides. Project-related emissions would impede the attainment of standards for ozone and CO. However, project emissions would probably not have a measurable effect on the reductions achieved by BAAQMD / CARB control strategies, on citywide or regional concentrations, or on the frequency of violations of the standards. The project would add to the cumulative increase in ozone downwind but would not have a statistically significant effect on ozone concentration. Neither the project nor other development in the project vicinity would conflict directly with the control strategies of the Bay Area Air Quality Plan./1/

### NOTE - Air Quality

/1/ Association of Bay Area Governments (ABAG), Bay Area Air Quality Management District, and Metropolitan Transportation Commission, 1982, 1982 Bay Area Air Quality Plan, p. 58.

TABLE 8: PROJECTED ROADSIDE CARBON MONOXIDE CONCENTRATIONS (ppm)\* - 1995  
(FULL PROJECT BUILDOUT)

Receptor	Averaging Time	Concentration*			
		1982	Existing + Cumulative***	Existing + Cumulative + Project***	% Change**
1. W Side US 101, N Side Blanken	1-hour	7.2	9.7	10.6	+9
	8-hour	4.0	5.3	5.8	+9
2. W Side US 101, S Side Blanken	1-hour	7.9	10.8	11.7	+8
	8-hour	4.3	5.9	6.4	+8
3. W Side US 101, S Side Nibbi Ct.	1-hour	9.0	12.4	13.5	+9
	8-hour	5.0	6.8	7.4	+9
4. W Side US 101, N Side Alana	1-hour	8.9	12.0	13.2	+10
	8-hour	4.9	6.6	7.3	+11
5. W Side Gillette, N Side Blanken	1-hour	4.4	5.8	6.2	+7
	8-hour	2.4	3.2	3.4	+6
6. W Side Gillette, S Side Blanken	1-hour	4.0	5.2	5.7	+10
	8-hour	2.2	2.9	3.1	+7
7. W Side US 101 SB On-ramp, S Side Beatty	1-hour	3.7	4.9	6.0	+22
	8-hour	2.0	2.7	3.3	+22
8. SW Corner, OB 1	1-hour	4.0	5.2	5.7	+10
	8-hour	2.2	2.9	3.1	+7
9. NW Corner, Proposed Alana Way Restaurant	1-hour	4.1	5.7	7.2	+26
	8-hour	2.3	3.1	4.0	+29
10. W End Candlestick Point State Recreation Area	1-hour	2.3	2.9	3.8	+31
	8-hour	1.3	1.6	2.1	+31
11. SW Corner, Proposed Area 3 Housing	1-hour	2.0	2.6	2.9	+12
	8-hour	1.1	1.4	1.6	+14
12. SW Corner, Proposed Area 2 Housing	1-hour	4.4	5.8	6.3	+9
	8-hour	2.4	3.2	3.5	+9

\* Calculations were made using CALINE 3, for worst-case (poor-dispersion) meteorology, using EMFAC-6C emission factors. A nominal background level of 1 ppm was included to represent sources outside the network area.

\*\* Percent change of 1995 Project-Case (Existing plus Cumulation plus Project) over 1995 Base-Case (Existing plus Cumulative).

\*\*\* Cumulative development affecting the intersections noted above includes: on-site development (OB 3, OB 4 and a restaurant south of Alana Way); local development (the Southern Pacific Bayshore Office Park and Baylands Development Area) in Brisbane; and regional increases on US 101.

SOURCE: Environmental Science Associates, Inc.

**F. NOISE**

Traffic generated by the project would increase traffic noise levels in the project vicinity. Projected peak-hour traffic noise levels were calculated with the Federal Highway Administration Highway (FHWA) Traffic Noise Prediction Model, SNAP I computer program. A network of 18 road segments and 12 receptor locations in the project vicinity was established. Three scenarios were run: existing (1982), existing plus 1995 cumulative traffic volumes, and project plus existing and 1995 cumulative traffic volumes. These scenarios do not include traffic from Candlestick Park events, which would increase noise levels during pre- and post-game periods. On the other hand, during typical peak traffic periods, the results of the analyses may represent worst-case levels because shielding effects of intervening structures and topography are not included. The results of the analyses are in any case considered approximations. The results are summarized in Table 9, p. 106.

Because US 101 is currently operating at or near capacity (Level of Service E), peak traffic noise due to US 101 would not be expected to increase above existing levels. However, the duration of the peak noise levels would extend concomitant with extension of the peak traffic period (see Figure 13, p. 93). Should traffic volumes decrease and Levels of Service improve, peak-hour traffic from the project could increase then-existing noise levels on US 101. An improvement in the Level of Service is associated with a decrease in traffic volume but would increase the speed of each vehicle. The increased speed would result in higher noise output per vehicle.

In the western half of the project site, in Little Hollywood, and in the sections of Visitacion Valley and Bayview Hunters Point nearest to US 101, increased noise levels produced by traffic on the local streets would still be masked by traffic on US 101. This would also be true even when peak-hour project-generated traffic coincides with traffic associated with events at Candlestick Park Stadium. In the eastern half of the project site and other areas similarly located farther from US 101, the increased local traffic volumes would dominate the noise environment. The only receptor point predicted to experience a noise increase of three dBA or more (which is the minimum perceptible to most people) is located in the eastern half of the project site, along Harney Way.

Intrusive noise created within the project area may possibly be amplified in locations throughout Areas 1 and 2 as the steep slopes reflect sound waves and prevent normal noise



TABLE 9: PROJECTED PEAK-HOUR ROAD TRAFFIC NOISE LEVELS (dBA)\*

Receptor	Leq*		
	Existing	Existing + Cumulative**	Existing + Cumulative** + Project
			1995
1. W Side US 101, N Side Blanken	77	76	77
2. W Side US 101, S Side Blanken	77	76	77
3. W Side US 101, S Side Nibbi Ct.	77	76	77
4. W Side US 101, N Side Alana	76	76	77
5. W Side Gillette, N Side Blanken	72	72	72
6. W Side Gillette, S Side Blanken	71	71	71
7. W Side US 101 SB On-ramp, S Side Beatty	70	70	71
8. SW Corner, OB 1	72	72	72
9. NW Corner, Proposed Alana Way Restaurant	72	73	74
10. W End Candlestick Point State Recreation Area	67	68	71
11. SW Corner, Proposed Area 3 Housing	64	64	65
12. SW Corner, Proposed Area 2 Housing	73	73	73

\* Calculations of Leq were made using SNAP 1 (Simplified Noise Analysis Program), FHWA Highway Traffic Noise Prediction Model, without Candlestick Park Stadium traffic.

\*\* Cumulative development affecting the intersections noted above includes: on-site development (OB 3, OB 4 and a restaurant south of Alana Way); local development in Brisbane (the Southern Pacific Bayshore Office Park and Baylands Development Area); and regional increases on US 101.

SOURCE: Environmental Science Associates, Inc.

attenuation. Similarly, traffic noise within the project area (e.g. Executive Park Blvd. West) would probably be audible in portions of Areas 1 and 2 because of such reduced attenuation characteristics.

Housing proposed in all areas of the site would require a noise-reduction analysis because modeled ambient noise levels are above 60 dBA, the maximum level recommended for residential uses in the San Francisco Environmental Protection Element (see Table 2, p. 55), and the threshold of the Title 25 Noise Insulation Standards (California Administrative Code). This noise reduction analysis should include the effects of nighttime Candlestick Park Stadium events.

### G. ENERGY

#### CONSTRUCTION ENERGY REQUIREMENTS

General contractors for the project have estimated that about 300,000 kWh of electricity, 50,000 gallons of diesel fuel and 56,000 gallons of gasoline would be consumed by on-site construction equipment over the ten-year project construction period.<sup>/1/</sup> This would be equivalent to about 17.4 billion at-source Btu (equivalent to about 3,000 barrels of oil). The total construction energy required for the project, including that consumed in material fabrication and materials and worker transportation, as well as that used by construction equipment and construction-related truck trips, would be about 2.6 trillion at-source Btu (about 448,000 barrels of oil).<sup>/2/</sup> If distributed over the estimated 50-year life of the project, this would be equivalent to about 52 billion Btu per year, or about 11% of the annual building energy requirements (see discussion following).

#### OPERATIONAL ENERGY<sup>/3,4/</sup>

##### Proposed Energy Design

As the proposed project has been conceived of at a master plan level of detail, precise operational energy requirements are not known at this time. For example, the types and amounts of glass and insulation are not known. Where design features affecting energy consumption are not known, maximum or upper ranges of energy consumption have been

used in the following evaluation. The project would be designed to comply with the prescriptive building energy efficiency standards required by Title 24 of the California Administrative Code, which specify the degree of insulation, weatherstripping, glazing, lighting, and other features required for new buildings. At the general level of design detail, it is not possible to determine if the project would conform to the performance standards of Title 24, which specify the maximum amount of energy consumption per sq. ft. of building area. Prior to approval of each building permit, a detailed energy analysis would have to be conducted to demonstrate that an individual structure would conform to Title 24 standards. The following analysis is not intended to demonstrate performance-standards compliance with Title 24, but is intended to estimate total energy consumption of the proposed project.

Electricity would be used for lighting, air conditioning, ventilation, cooking, elevator operation, office equipment operation, and plumbing system pumping. Natural gas would be used for space and water heating. Project heating, ventilating, and air conditioning (HVAC) would be the prime user of electricity and natural gas. Depending on the number and placement of HVAC units, their distribution systems could be extensive. If so, the amount of electrical power required for circulating fans and pumps could be inefficiently used due to backpressure within the systems. Excessive energy consumption could also result from loss of conditioned air from the building or intrusion of unconditioned air into the building through doors and other openings.

The lighting system would be the second largest consumer of energy in the project. Illumination of office spaces would be provided primarily by fluorescent lights (the office uses would use the most lighting), while the residences would have mostly incandescent lighting. The specific amount of lighting in each area would depend partially on the color and texture of the walls, ceilings, and other surfaces. The amount of lighting required for the project would add substantially to the cooling loads during the summer, because most of the electricity used for lights would be converted to heat. Waste heat from lighting would also, however, provide part of the heat in winter, reducing the building's requirement for natural gas.

Lighting systems in perimeter areas would be separately controlled to allow for reduced artificial illumination when natural sunlight is available. The stepped and terraced



configurations of proposed structures along the hillside would allow relatively narrow floor area, thereby permitting extensive use of daylight. However, this could also result in excessive solar heating of interior spaces during the summer, which would increase the load on the mechanical cooling system. Other than the use of daylight (including passive heating), project plans currently do not include use of solar energy or other renewable energy resources.

The locations and orientations of buildings affect the amount of heating and cooling required. Proposed structures would be set into a south-facing hill, with their longest walls parallel to the face of the hill (the hotel structure is a possible exception; see Figures 2 and 4, pp. 22 and 24). The southern exposure would result in a large amount of passive solar heating, which would reduce mechanical heating during the winter, but would increase required mechanical cooling during the summer unless devices such as overhangs are used to decrease direct radiation by the sun.

### PROPOSED ENERGY BUDGET

Total annual energy demand (at-source Btu) for the proposed project and Executive Park site is shown in Table 10, p. 110. Operation of the 1.15 million sq. ft. of proposed office space would require about 18.4 million kWh (about 188 billion Btu) of electricity and about 79.7 million cu. ft. (about 87.7 billion Btu) of natural gas annually. Restaurant/retail and hotel components of the project would together require about 4.2 million kWh (about 43.3 billion Btu) of electricity and about 15.2 million cu. ft. (about 16.7 billion Btu) of natural gas annually. Operation of the proposed 500 residential units would require about 4.3 million kWh (about 43.6 billion Btu) of electricity and about 27.3 million cu. ft. (about 30 billion Btu) of natural gas annually. The total annual energy consumption for the proposed development plan amendment (see Table 10, below) would be about 461 billion Btu per year, an increase of about 1650% over existing energy use on the site (OB 1 and OB 2). The total energy budget of the entire Executive Park site, including OB 1, OB 2, OB 3 and OB 4, would be about 537 billion Btu per year.

Figures 15 and 16, pp. 111-111 show projected daily and annual electricity and natural gas consumption patterns by use for the project. Daily electricity consumption would peak between 10:00 a.m. and 3:00 p.m. and again between 5:00 and 8:00 p.m. Peak electrical consumption of about 5,000 kWh per hour, about 1.6 times the average electrical

TABLE 10: ESTIMATED ANNUAL ENERGY CONSUMPTION (billion Btu, at source)

<u>Item</u>	<u>Natural Gas*</u>	<u>Electricity**</u>	<u>Total</u>
Existing Uses (OB 1 and OB 2)	3.5	23.0	26.5
Proposed (Approved) Uses (OB 3, OB 4 and Alana Way Restaurant)	<u>2.4</u>	<u>46.9</u>	<u>49.3</u>
Subtotal	5.9	69.9	75.8
Proposed Project***			
Office	87.7	188.0	275.7
Residential	30.0	43.6	73.6
Hotel	14.2	26.0	40.2
Restaurant/Retail	2.5	17.3	19.8
Construction (annual amortized for a 50-year project)	<u>-</u>	<u>-</u>	<u>52.0</u>
Project Subtotal	134.4	274.9	461.3
Grand Total Executive Park Site	140.3	344.8	537.1

\* Conversion factor of 1,100 Btu per cubic foot of natural gas includes energy lost in production, transmission, and distribution.

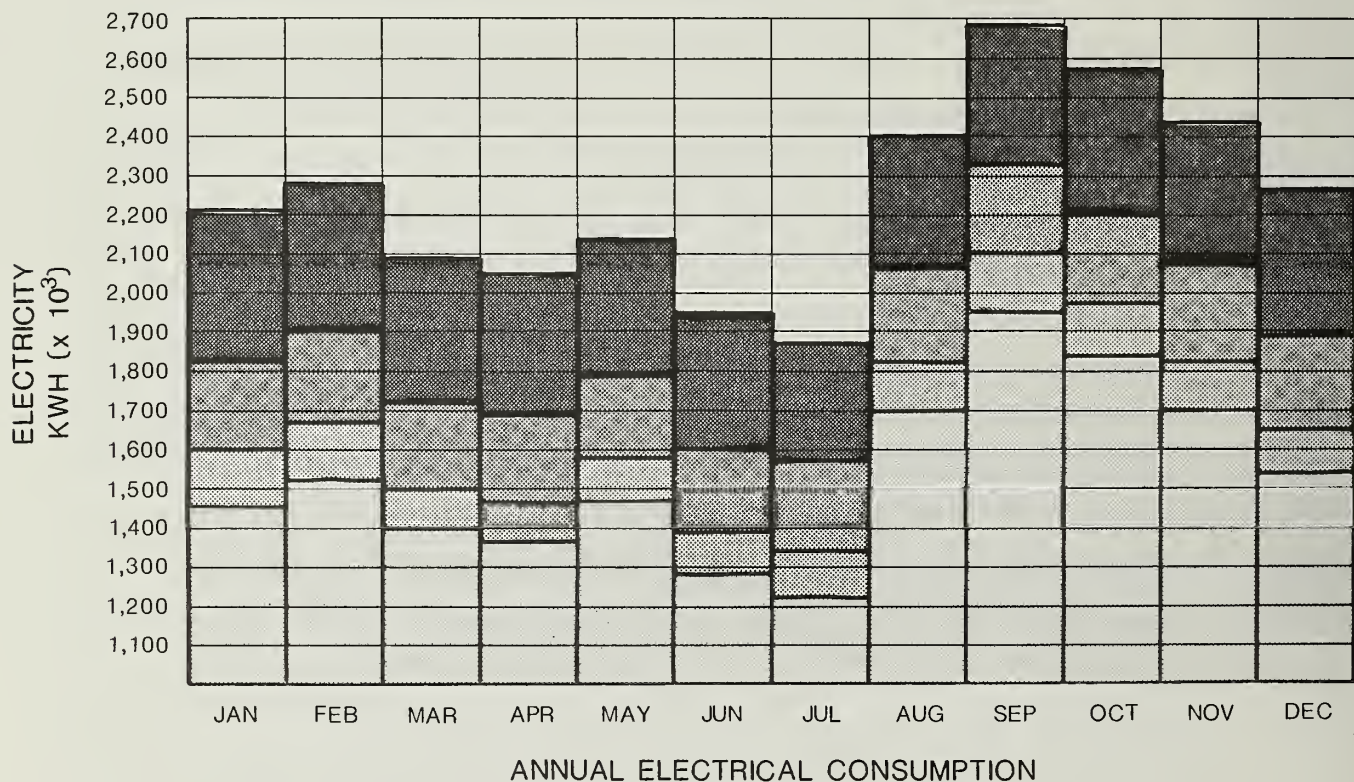
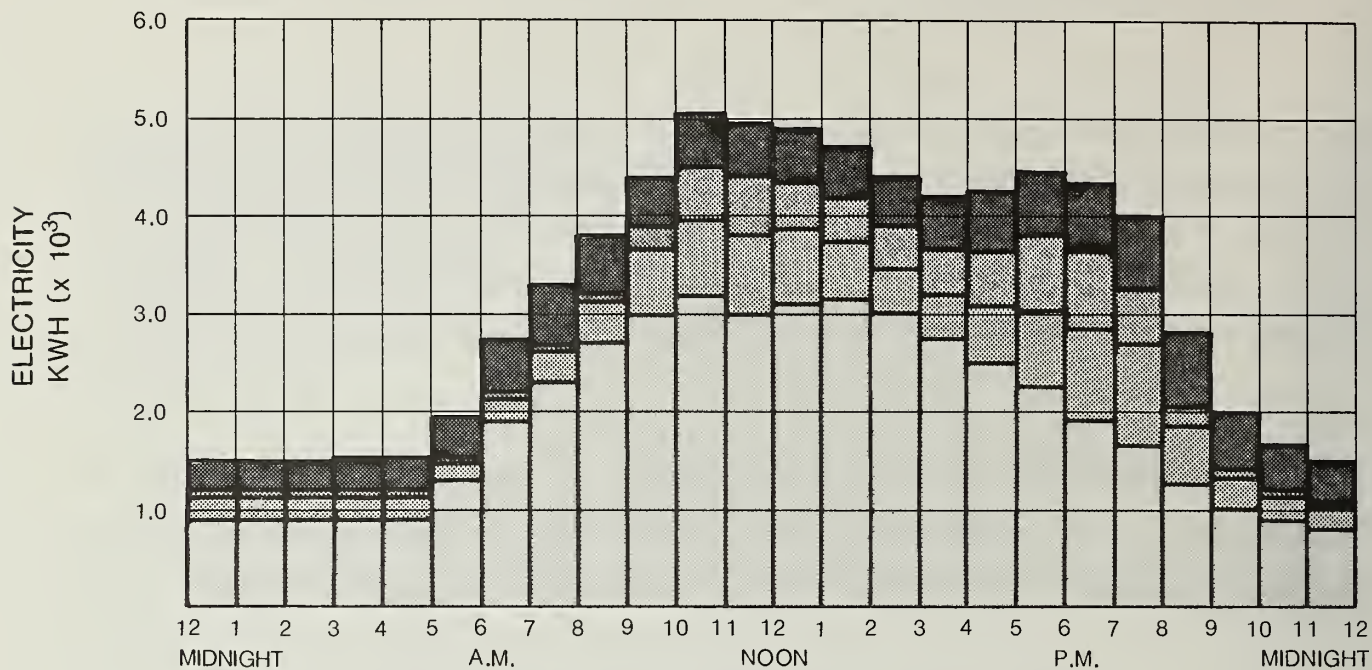
\*\* Conversion factor of 10,239 Btu per kilowatt-hour of electricity includes energy lost in production, transmission, and distribution.

\*\*\* Does not include project-related travel.

SOURCE: Environmental Science Associates, Inc.

consumption during the day, would occur during the late morning and early afternoon during the late summer and early fall. This peak period would overlap the earlier part of PGandE's systemwide peak period, which occurs between noon and 6:00 p.m. on summer evenings. The project's peak consumption of about 5,000 kWh per hour would be equal to about 0.03% of PGandE's systemwide peak electrical demand. Monthly electrical consumption would fluctuate between an annual low of about 1.87 million kWh per month in temperate July to about 2.67 million kWh per month in the Bay Area's typically warm September./5/





OFFICE
  HOTEL

RESTAURANT/RETAIL
  RESIDENTIAL

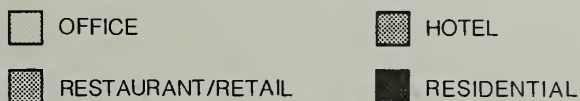
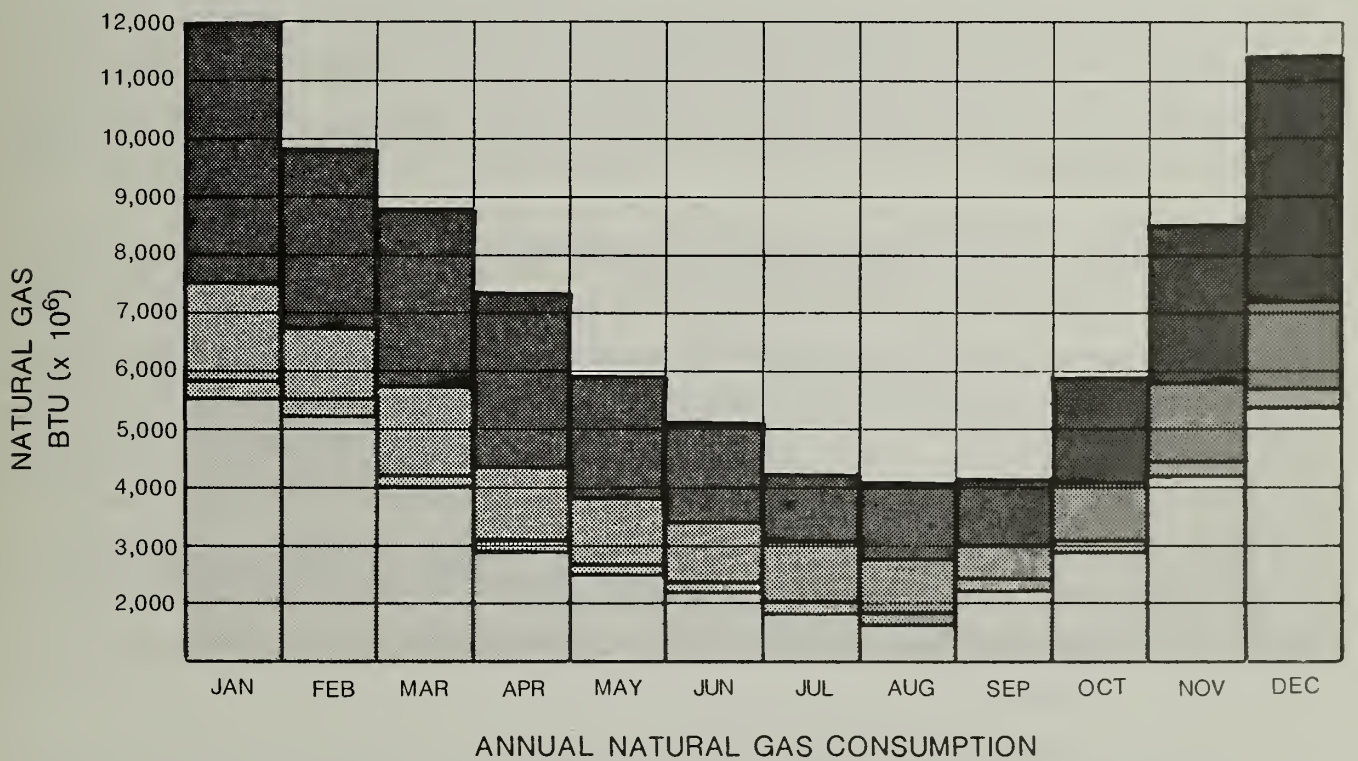
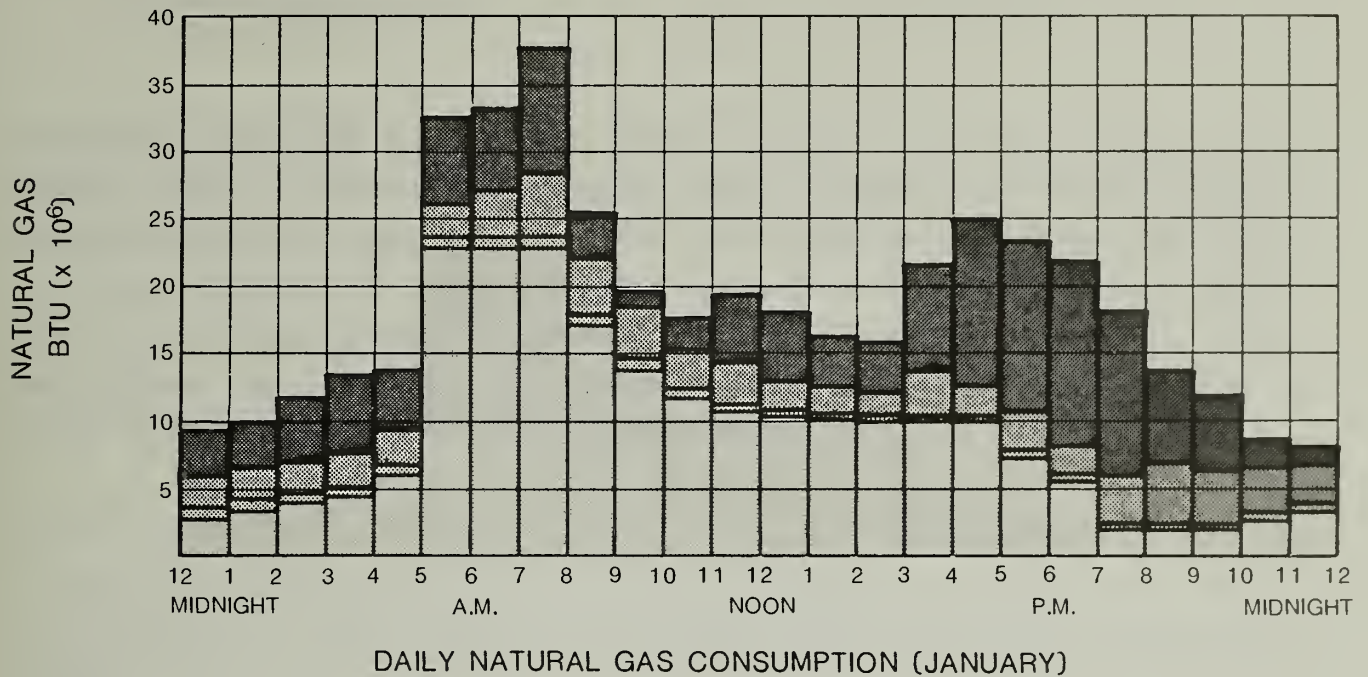
NOTE: Each bar shows the total electricity consumption of all four uses combined. The consumption of an individual use is represented by shaded segments. To determine the amount of consumption by use, subtract the value at the bottom of the segment from the value at the top of the segment.

FIGURE 15: PROJECTED ELECTRICITY CONSUMPTION

SOURCE

THE ENGINEERING ENTERPRISE, CONSULTING ENGINEERS AND ENVIRONMENTAL SCIENCE ASSOCIATES, INC.





NOTE: Each bar shows the total natural gas consumption of all four uses combined. The consumption of an individual use is represented by shaded segments. To determine the amount of consumption by use, subtract the value at the bottom of the segment from the value at the top of the segment.

**FIGURE 16: PROJECTED NATURAL GAS CONSUMPTION**

**SOURCE**

AIR CONDITIONING COMPANY INC. AND  
ENVIRONMENTAL SCIENCE ASSOCIATES, INC.

Peak demand for natural gas of about 37.5 million Btu per hour would occur on winter mornings as the hot water boilers come on. Because of their low thermal mass and large surface area, the project buildings would retain little heat overnight and would be reheated to comfort levels each morning. This winter gas peak, about 2.0 times the average daily natural gas load of about 18.6 million Btu per hour, would not coincide with the PGandE system-wide peak period for natural gas, which occurs in early evening hours in winter./6/

### TRANSPORTATION ENERGY

Project-related transportation would cause additional, off-site energy consumption. For the project trip generation described on p. 88 the project-related trips would require about 2.0 million gallons of gasoline and diesel fuel annually. The total annual transportation demand, converted with at-source factors to a common unit, would be about 275 billion Btu. This projected use is based upon the mix of road vehicles expected in California in 1995. Generally, statewide vehicle fuel use is expected to decrease until 1995 as the vehicle fleet becomes more efficient and the long-term trend of increasing fuel prices continues.

### ENERGY CONSERVATION REGULATIONS, PLANS, AND POLICIES

The project sponsor would demonstrate the project's compliance with Title 24 building energy conservation standards prior to obtaining building permits. This would ensure that the project, as designed, would achieve the minimum acceptable level of energy efficiency. The City Planning Commission, through its discretionary review powers, could, as a condition of building permit approval, require that an energy audit be conducted for each structure after a full year of operation. Such an audit would identify design and construction flaws that were not detected prior to actual construction and occupancy of a building.

As a mixed-use commercial/residential development, the project would address City energy policies to establish land-use patterns that reduce the number and distance of transit and vehicle trips; it would also address policies to encourage use of energy-conserving appliances. The project would not be responsive to City policies to promote alternatives to motor vehicle use, and to increase the use of renewable and alternative energy systems. The project also would not address fully City policies to



discourage use of master metering; individual metering would be installed in the residences and hotel rooms; master metering would be installed in proposed office uses. Further discussion of applicable energy policies and project compliance status is presented in Table F-1 in Appendix F, p. 224. The project would be partly responsive to Objective 2, Policy 2 of the Energy Element to design and orient buildings so as to minimize energy consumption. The conceptual design maximizes southern exposure of buildings, thereby allowing opportunities for incorporation of active and passive solar design features.

#### NOTES - Energy

/1/ Craig Wood, Williams & Burrows, Inc., General Contractors, letter, September 8, 1982.

/2/ Hannon, B. et al., 1978, "Energy and Labor in the Construction Sector," Science 202: 837-847.

/3/ PGandE indicates that its electricity and natural gas distribution systems in the site vicinity are adequate to serve the project site.

/4/ The discussion of operational energy consumption is based on information provided by The Engineering Enterprise, Consulting Engineers, and the Air Conditioning Company Inc.; this information is on file at the Office of Environmental Review, San Francisco Department of City Planning, 450 McAllister Street, 5th Floor, and can be reviewed during business hours (8:30 a.m. - 5:00 p.m.).

/5/ Electrical demand and consumption estimates were provided by The Engineering Enterprise, Consulting Engineers, and are based on data obtained from PGandE and from actual energy consumption of buildings in San Francisco and on the Peninsula.

/6/ Estimated natural gas use is based on actual operating data obtained from existing, similar buildings. The resulting figures were modified for orientation, and shading. The estimates assume that the buildings would be heated 26 days per month and that heating system efficiency would be about 70%.

#### H. GEOLOGY, SEISMICITY AND HYDROLOGY

##### GEOLOGY

Project grading would alter the existing man-made terraced topography to a series of level benches separated by moderately steep slopes. About 850,000 total cubic yards of material would be excavated on the site during the eight phases of construction./1/ This amount of excavation would be similar to the amount that would have been excavated (after development of OB 1 - OB 4) under the approved Yerby Plan. Of the 850,000 cubic



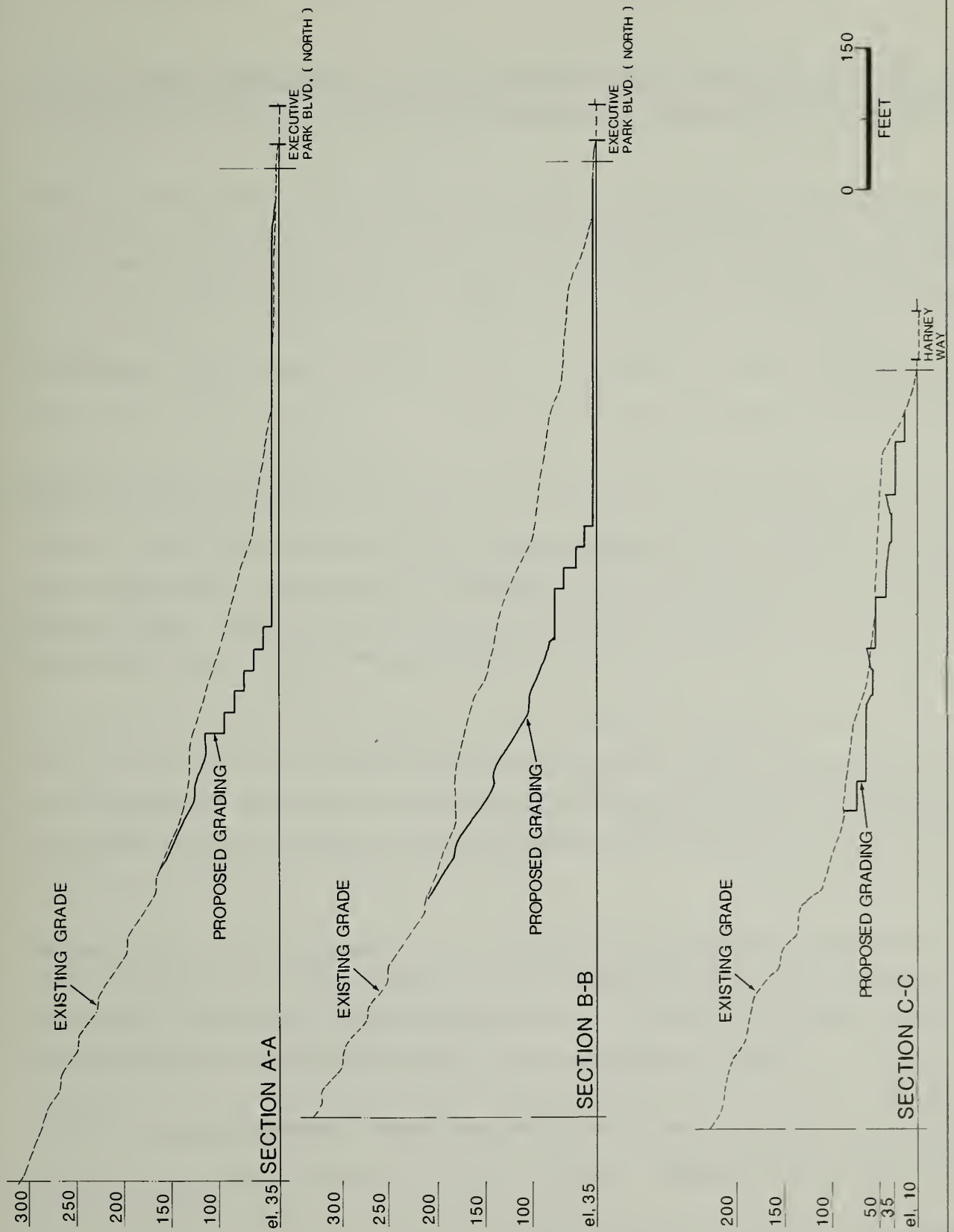
yards, approximately 25,000 cubic yards would be emplaced within the project area as compacted fill; the remaining 825,000 cubic yards would be transported to the Candlestick Point State Recreation Area or to the Southern Pacific development in Brisbane and be used as fill./2/ This is the equivalent of about 55,000 truck loads each with a fifteen cubic yard capacity. Sandstone/shale and greenstone geologic units would comprise most of the excavated material (see Figure 11, p. 59 for the locations of these units on the site). No excavation or grading would occur on any portion of the site above the 230 ft. elevation of the project area.

If appropriate erosion control measures are not implemented, increased erosion and siltation of storm drains and San Francisco Bay would occur as a result of project excavation and grading. The potential for erosion would be minimal if the proposed slope stabilization and landscaping measures (2:1 slope cuts and hillside tree planting and hydroseeding of areas with adequate soil) are performed soon after excavation and prior to the November-April rainy season./3/ Slopes would be surveyed prior to hydroseeding to determine which areas have adequate soil.

A maximum vertical cut into the hillside of 85 ft. and an average cut of 45 ft. in depth are proposed (see Figure 17, p. 116)./1/ Substantial cuts would be made into the central portion of the hillside for construction of the proposed office/housing, hotel, retail and parking uses (Areas 1 and 2). On the eastern portion of the site (Area 3), two existing benches on the slope would be cut into several smaller terraces that would provide a suitable foundation for the proposed 400 units of housing.

The stability of the proposed cut slopes would depend on the slope steepness and the strength, degree of weathering, and structural characteristics of the underlying rock. Slope stabilization measures would be determined as part of a detailed geotechnical study for the hillside and individual building sites (see VI. Mitigation Measures, p. 158)

The proposed overall 2:1 slope configuration with 15-ft.-wide benches every 30 to 40 ft. along the slope would flatten existing slopes and provide adequate slope stability./4/ Project excavation would expose relatively unweathered greenstone and sandstone/shale. In their unweathered forms, these rock types are quite stable. Localized erosion and minor shallow slope failures could occur because of adverse slope/bedding and fracture



See Figure 2 for the location of cross sections.

SOURCE

FIGURE 17: EXISTING AND PROPOSED TOPOGRAPHY

## V. Environmental Impacts

patterns in the rock, the presence of intensely fractured and sheared upturned layers of weathered rock and the destabilizing effects of infiltrating surface and ground water.

The average slope inclination would be 2:1; this average includes steep slopes (1.6:1) about 30 to 40 ft. in vertical length separated by relatively flat narrow (15-ft.-wide) terraces. Benched (or stepped), as opposed to continuous, slopes would help control surface drainage, and provide access to the upper slopes for landscaping and maintenance.

The upper six inches of areas to receive fill would be conditioned according to specifications of the Department of Public Works.

The proposed buildings would be supported on shallow spread-type foundations bearing on properly compacted fill, firm natural soil and bedrock. About one-quarter to one-half inch of settlement is anticipated where buildings are placed on six ft. of new compacted fill.<sup>4/</sup> Because of consolidation of the moderately compressible soils under loads imposed by new fill, this amount of settlement is expected within Area 1 where office structures and the retail Town Center plaza would be constructed north of Executive Park Blvd. (North).

Settlement in Area 2 where the office/housing and hotel/convention complexes would be constructed is projected to be less than one quarter of an inch because these portions are underlain by a thin soil layer over bedrock.<sup>4/</sup> Where buildings are sited on bedrock, no settlement is expected.

Localized seams of expansive clay may be encountered during project construction as they were in the excavation for OB 4.<sup>5/</sup> If encountered, these seams would be excavated and replaced with suitable material to minimize the potential for structural damage from settlement. Proposed erosion-control and hillside landscaping measures would be responsive to Land Policy 2 for Conservation of the Environmental Protection Element, which states "Protect land from changes that would make it unsafe or unsightly." (See VI. Mitigation Measures, p. 156.)

## SEISMICITY

All project structures would be designed to meet seismic design standards, as specified in the San Francisco Building Code. Static and dynamic analyses showing building



performance during earthquakes would be performed for each building at a later date as required by Section 2314.D.2 of the San Francisco Building Code prior to building permit approval.

Groundshaking would be the greatest potential hazard. All proposed structures would be designed to resist the lateral loads induced by earthquake shaking. Strong seismic shaking could induce limited shallow failures in the existing and new cut slopes. If loosely embedded boulders are left protruding after the final excavation or inadequate erosion control allows them to become undercut by differential erosion, seismic shaking could trigger their movement downhill.

### HYDROLOGY

Localized seepage from cut slopes would probably occur following excavation. Seepage in strong rock presents little problem to slope stability and can be diverted into the surface drainage system. Seepage in the weak shale located in the sandstone rock units (see Figure 11, p. 59) could result in slope instability.

Benches proposed for the upper slopes of the site would direct runoff toward the back of the benches instead of forward over the steeply cut slopes. This would reduce erosion because the amount of runoff flowing over steep slopes and the velocity of the surface runoff would be reduced. Erosion would also be reduced because runoff could be directed to drainage structures before causing much erosion.

Dewatering would not be required on any portion of the site during construction because the water table depth is below the depth of the building foundations. Localized areas of seepage within building areas could, however, occur as evidenced by the need to install a gravel subdrain at the southwestern portion of the building pad for OB 3.

### NOTES - Geology, Seismicity and Hydrology

/1/ Andy Laguana, Project Architect, Hellmuth, Obata & Kassabaum, Architects, letter, September 3, 1982.

/2/ Sara Liss-Katz, Landscape Architect, Hellmuth, Obata & Kassabaum, Architects, telephone conversation, October 12, 1982.

/3/ Hydroseeding is the process by which surfaces are vegetated by spraying a mixture of seeds, fertilizer, and water onto the slopes. This process tends to result in rapid growth of cover on the slopes.

/4/ Harding-Lawson Associates, 1977, Geotechnical Investigation, San Francisco Executive Park, San Francisco, California.

/5/ Harding-Lawson Associates, 1982, Soil Investigation, San Francisco Executive Park, Office Building 4, San Francisco, California.

## I. ECOLOGY

### VEGETATION

The project grading and construction would remove all vegetation below approximately the 160 ft. elevation in Area 1, the 230 ft. elevation in Area 2, and the 100 ft. elevation in Area 3. Some vegetation on the upper slopes above the 230 ft. contour would be removed for hillside trails and construction of the funicular and restaurant. The project would decrease by about 23 acres the amount of undeveloped lands in the City and County of San Francisco available for colonization and growth of native plants. The value of the habitat that remained, as well as that of the wildlife habitat contained in Bayview Park, (27 acres) would be decreased slightly by the increase in human activity on and around the site. Thus, the effective loss of wildlife habitat could exceed the 23 acres proposed for development.

The proposed planting concept for the hillside would consist of four planting treatments: 1) installing cascading ground covers on the steep slopes at the northeastern portion of the site; 2) infilling existing planting along the northwestern benches; 3) planting remaining hillside areas with a combination of shrubs and cascading plants that would eventually cover exposed slopes; and 4) hydroseeding all slopes with wild flowers and grasses (see also V. Mitigation Measures, pp. 158-159). Plant materials would be predominantly native California species (see Appendix G, p. 226). Soil would be added to the slope where necessary, as determined by a landscape architect, to maintain growth.

### WILDLIFE

The project would displace some of the wildlife now inhabiting the site and would reduce available forage for animals occupying adjacent areas and feeding on the site. Until

landscaping is planted, there would be a temporary loss of habitat during project excavation and grading. Grading would also eliminate small year-round ponds on the site that may be important sources of fresh surface water for wildlife inhabiting the site and the adjacent Bayview Park. Fresh water is often a limiting factor in wildlife use of an area.

Landscaping introduced as part of the project would alter the character of the wildlife habitat that remained. If, as proposed, plants selected for landscaping were predominantly native species carefully selected both for their aesthetic qualities and for their value as a resource for wildlife, the landscaping provided by the project could offset lost habitat and could support native animals now inhabiting the site (see Appendix G, p. 226 for a list of plants that would enhance the habitat value and would be most likely to survive soil conditions of the site). If the plants selected for landscaping consisted primarily of non-native ornamental trees, shrubs, and groundcovers, the project could provide more habitat for non-native and urban-adapted native wildlife already common in adjacent urban areas.

See VI. Mitigation Measures, p. 158 for measures that would re-establish surface ponds and use predominantly native species for landscaping. These measures would address General Policy 3 and Land Policy 1 for Conservation of the Environmental Protection Element.

### Rare and Endangered Species

The project also would not eliminate populations of the San Bruno elfin, mission blue, nor Callippe Silverspot butterflies, nor the host plants on which these species depend (see Section IV. I., p. 63).<sup>1/</sup> Food hosts of the mission blue (Lupinus albifrons and Eriogonum latifolium) and of the Callippe Silverspot (Viola pedunculata) were found growing north of the site on Bayview Hill Park. Development of the Executive Park site would not directly affect or destroy areas of Bayview Hill Park that may host the mission blue and Callippe Silverspot butterflies. However, the project could affect these areas indirectly by altering the microclimate of Bayview Hill, changing existing water flow patterns, increasing the number of people in the area, and introducing to Bayview Hill some non-native plants used in landscaping.<sup>1/</sup>

The project would not eliminate populations of coast rock cress (Arabis blepharophylla) or Diablo helianthella (Helianthella castanea), which are extirpated from the site. If



feasible, the landscaping plan would provide for rare and endangered butterfly and plant species that previously occurred on the site (see p. 159). This would address Flora and Fauna Policy 2 for Conservation of the Environmental Protection Element: "Protect rare and endangered species."

NOTE - Ecology

/1/ Dr. Richard Arnold, Research Fellow, University of California, Berkeley, Entomological Survey of San Francisco Executive Park for Rare and Endangered Species, May 31, 1983. A copy of this survey is on file and available for public review at the Office of Environmental Review, 450 McAllister St., Fifth Floor.

**J. EMPLOYMENT, HOUSING AND FISCAL FACTORS**

The following section is not required by the California Environmental Quality Act (CEQA). It is included here for informational purposes only.

INTRODUCTION

The proposed project would be constructed over a ten-year period; full project occupancy would occur about 1995. Unless stated otherwise, all dollars used in this section are 1983 dollars. This section describes project impacts based on current data and on present trends that seem likely to continue in the future. Precise quantification of future economic conditions and project impacts on those conditions is not possible.

EMPLOYMENT

Construction Employment

The project would require about 500 person-years of construction labor, an average of about 50 full-time jobs per year throughout the ten-year construction period. About 775 additional person-years of employment would be generated in the Bay Area as a result of the multiplier effect of project construction./1/

The general contractor for the proposed project would be Williams & Burrows, Inc. This firm employs an Equal Opportunity Officer who would administer its Affirmative Action

program throughout the construction period. Williams and Burrows, in conjunction with the construction trade unions, has provided apprenticeship and training programs for several construction job categories and actively recruits qualified minorities and females. The general contractor would work with construction trade unions to increase minority and female representation, and would solicit minority subcontractors or subcontractors with minority and female group representation (see also V. Mitigation Measures, p. 160)./2/

### Permanent Employment

At full buildout, the proposed project would construct a total of 1.15 million sq. ft. of office space, 234,000 sq. ft. of hotel/meeting space (350 rooms), 45,000 sq. ft. of restaurant and retail space, and 425,000 sq. ft. of housing (500 units). On the assumption of full occupancy, about 5,000 full-time jobs would be provided by the proposed project. About 92% of proposed project employees would be office workers; about four percent would be hotel workers, and the remaining four percent, retail and maintenance employees. Total employment at the Executive Park site, including existing and proposed office and restaurant uses would be about 7,000 employees. This projection of employment was derived on the assumption of an average amount of building space per employee by employment type (see Table 11, p. 123).

An October 1982 survey of employees at OB 1 and OB 2 indicated an employee occupancy of about 290 sq. ft. per employee. Occupied floor area in OB 1 (100%) and OB 2 (45%) represents about 8% of total office space that would be developed at the site, if the project is approved. Because of the currently low percentage of project occupancy, office space of 290 sq. ft. per employee is not necessarily representative of space per employee at the site in the future. Therefore, the standard rate of 250 gross sq. ft. of building space per employee was used to estimate office employment; this can be considered as a highest-density estimate.

### Secondary Employment

Through the multiplier effect, secondary employment and income would result from permanent project employment. Each employed person would generate additional

TABLE 11: PROJECTED PERMANENT EMPLOYMENT AT THE EXECUTIVE PARK SITE

<u>Employment Type</u>	<u>Building Space (Gross Sq. Ft.)</u>	<u>Space per Employee (Sq. Ft.)</u>	<u>Projected Number of Employees/a/</u>	<u>Percentage of Project Total Employment</u>
Office	1,150,000	250 /b/	4,600	92%
Retail	45,000	400 /b/	115	2
Hotel	350 rooms	0.6 emp./room/c/	210	4
Office Maintenance	1,150,000	30,000 /d/	40	1
Residential Maintenance	425,000	14,000 /e/	30	1
TOTAL PROJECT AREA EMPLOYMENT			4,995	100%
EXISTING EMPLOYMENT - OB 1, OB 2 /f/			840	
ANTICIPATED EMPLOYMENT - OB 3, OB 4			1,135	
TOTAL ON-SITE EMPLOYMENT			6,970	

/a/ All numbers are rounded to the nearest five employees.

/b/ California Office of Planning and Research, January 1978, Economic Practices Manual, pp. 35-37

/c/ Department of City Planning, San Francisco Hilton Hotel, Tower No. 2 Final EIR, EE 79.257, SCH 80093004, certified January 29, 1981, pp. 40-41.

/d/ Office buildings generally employ one janitor per 30,000 gross sq. ft.

(Roger Dillon, Secretary-Treasurer, Building Service Employees Union, Local 87, telephone conversation, April 17, 1980).

/e/ Judgment of Dr. Jan Newton, ESA Staff Economist.

/f/ Assumes full occupancy of OB 1 and OB 2. As of June 1983, OB 2 was about 45% occupied.

SOURCE: Environmental Science Associates

employment through expenditures for goods and services. This estimate would vary depending on the types of tenants that would occupy the project after completion.



TABLE 12: HOUSEHOLD INCOME OF EXISTING OFFICE EMPLOYEES AT THE EXECUTIVE PARK SITE (OB 1 and OB 2)

<u>Household Income Per Year*</u>	<u>Percent (%)**</u>
less than \$12,000 per year	8.5
\$12,000 - \$14,999	5.4
\$15,000 - 24,999	26.2
\$25,000 - 49,999	38.5
\$50,000 - 74,999	13.1
\$75,000 - 99,999	5.4
\$100,000 and above	<u>3.1</u>
TOTAL	100.0%

\* Incomes refer to incomes of all persons residing in a single household.

\*\* Entries do not add up to 100% because of rounding.

SOURCE: Appendix D, Figure D-1, p. 214 and Environmental Science Associates, Inc.

### Employee Salaries

Salaries of project employees would vary according to job classification, level of experience, and whether the position is union or nonunion. Household incomes of existing Executive Park employees were surveyed in the October 1982 questionnaire (see Appendix D Figure D-1, p. 214 Questions 17 - 18). The range of household incomes is shown in Table 12, below.

On the basis of these data, it is reasonable to assume that the median income of office employees of the project would be somewhat above \$25,000 (1983 dollars).<sup>/3/</sup> The median income of retail employees in San Francisco-Oakland was about \$13,700 in August 1981.<sup>/4/</sup> The incomes of hotel, maintenance, and restaurant employees would probably be similar to those of retail employees.<sup>/5/</sup> These assumptions about employees' incomes were used to project housing affordability, payroll tax revenues, and sales tax revenues.

### OFFICE SPACE MARKET

Although the project would be located in San Francisco, the characteristics of the proposed project would more closely resemble those of a suburban office development than downtown office development. The project would provide about 1.15 million sq. ft. of office space in addition to the 284,000 sq. ft. that is approved for construction on-site (OB 3 and OB 4) and the 210,000 sq. ft. that currently exists on the site (OB 1 and OB 2). This would be in addition to the net increase of 18.4 million gross sq. ft. of office space proposed in downtown San Francisco as of June 1983/6/ (after taking into account the existing space on the site of new buildings that would be demolished).

Although on a smaller scale, similar office development growth is occurring in San Mateo County. Existing office space in Northern and Central San Mateo County (defined as Daly City, Brisbane, South San Francisco, San Bruno, Millbrae, Burlingame, Foster City, and San Mateo) totals about 6.6 million sq. ft. Office projects proposed, approved or under construction in this area total roughly 17 million sq. ft., representing about a 250% increase above the amount of office space which currently exists in Northern and Central San Mateo County./7/

The project could have an effect on both downtown San Francisco and suburban San Mateo office markets. If all proposed developments are built, there could be a period when there is an oversupply of office space until the market absorbs the space. During this period, commercial rents may be expected to stabilize or decline and vacancy rates would rise. The number of proposed office developments could decline if there is insufficient demand for office space presently planned or under construction and for office space that would be vacated upon expiration of current leases. Office rents in the proposed project would be about \$26 per sq. ft. annually, substantially less than the rents for first-class office space in the downtown core, but similar to office rents in new office space in San Mateo County and the South of Market area of San Francisco./7,8/

### HOTEL MARKET

The project would develop a 350-room quality hotel plus meeting and restaurant facilities during Phase Seven construction in 1994. Occupants are anticipated by the sponsor's hotel

## V. Environmental Impacts

marketing consultant, Laventhol and Horwath, to be primarily persons attending meetings, and overnight business travelers, some of whom would be associated with the on-site office space. Anticipated room rates of about \$60 per night would reflect suburban (up to about \$75 per night) rather than downtown (often over \$100 per night) hotel-room rates because the proposed hotel would not be close to tourist attractions and downtown amenities.

According to the San Francisco Convention and Visitors Bureau, over 7,000 additional hotel and motel rooms, exclusive of the project, are planned or under construction in San Francisco./9/ Over 4,000 of these rooms are scheduled for completion before mid-1985. If all are constructed, the stock of San Francisco hotel rooms renting for \$60 or more per night (1981 dollars) would increase by 31%./10/ According to the San Mateo County Convention and Visitors Bureau, over 10,000 quality hotel and motel rooms are proposed, approved or under construction in San Mateo County. If all are built, the stock of quality rooms in the Peninsula would increase by about 300%./11/

Future demand may not be sufficient to absorb all of the new hotel rooms proposed or under construction in San Francisco and on the Peninsula. However, it is not possible to verify forecasts of hotel room demand because of the uncertainty of future economic conditions. Factors influencing demand for hotel rooms include the health of the national and international economy, air fares and the supply of adequate tourist facilities (see Appendix H, pp. 229-230 for a discussion of these factors).

Visitors at the proposed hotel would spend about \$11.1 million per year (exclusive of expenditures for hotel rooms and for food and beverage within the hotel). The distribution of these revenues is shown in Appendix H, Table H-1, p. 228./12/ Many purchases by hotel occupants would be from local merchants, particularly restaurants outside of the hotel, and retail stores. Part of this demand for goods and services by hotel occupants would be satisfied by the 45,000 sq. ft. of new retail/restaurant space proposed as part of the project. Not all of the \$11.1 million of expenditures would be in San Francisco; some expenditures would probably be captured by businesses in northern San Mateo County.



## HOUSING

On the basis of the October 1982 survey of existing employees at OB 1 and OB 2, the distribution of increased employment attributable to the project would be as shown in Table 13, p. 127./13/

The survey results indicate that total new on-site workers would occupy about 1,275 households; of this amount about 1,175 (92%) would contain office workers in the project. On the basis of the City's Office Housing Production Program (OHPP) formula/14/ and the survey results from OB 1 and OB 2, the office space proposed by the project (1.15 million gross sq. ft.) would generate a demand for between 1,022 and 1,174 housing units.

The 1,275 project households are not the same as new housing demand attributable to the project. An estimate of new housing demand directly attributable to the project must

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TABLE 13: PROJECTED DISTRIBUTION OF OFFICE EMPLOYMENT AND HOUSEHOLDS, BASED ON EXISTING EMPLOYEES AT OB 1 AND OB 2

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	<u>San Francisco</u>	<u>Peninsula (San Mateo and Santa Clara Counties)</u>	<u>East Bay (Alameda and Contra Costa Counties)</u>	<u>North Bay (Marin and Sonoma Counties)</u>
Distribution of Existing Employees	37%	42%	12.5%	8.5%
Distribution of Projected Employees	1,850	2,100	625	425
Existing Employees per Household	1.45	1.91	2.00	1.43
Projected Households	1,275	1,100	310	295

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SOURCE: Environmental Science Associates, Inc., based on projected employment (see Table 11, p. 123) and results of a survey of existing employees (see Appendix D, Figure D-1, p. 214).

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subtract new project workers who would already reside in San Francisco, before their employment at the Executive Park site. For the purpose of this analysis, it is assumed that existing San Francisco residents who would work at the project already would have adequate housing and would not desire to seek new housing in the City.

The October 1982 survey of OB 1 and OB 2 employees indicates that construction of OB 1 and OB 2 resulted in a negligible increase in the demand for housing in San Francisco resulting from development. All survey respondents resided in Bay Area counties before obtaining their jobs at OB 1 or OB 2. Approximately 80% of the workers indicated that they had not moved to a new residence since beginning work at Executive Park. About two percent of total respondents had moved to San Francisco from other Bay Area counties after moving or obtaining their job at the OB 1 and OB 2. This increase in housing demand was offset by the 3.4% of the respondents who moved out of San Francisco after obtaining employment at Executive Park. Should these patterns of employee movements hold true for the project, direct housing demand attributable to the project would be minimal.

New office construction also generates indirect housing demand. This secondary housing demand would be generated by jobs which are created or replaced in buildings that would be vacated by project tenants./15/ The principal source of the office tenants at OB 1 and OB 2 has been existing San Francisco firms that have relocated from the downtown./16/ Because of this transfer of employees from existing San Francisco buildings to new buildings, a portion of new employees in the City may be expected to locate in the older vacated buildings. Because of these complexities and the lack of empirical data, the secondary housing demand cannot be estimated, because it is not possible to trace the chain of employee movements and to know in advance which buildings will be vacated (and which other buildings will be vacated to fill the first level of vacated space./15/

### City Housing Policy

Under the OHPP Interim Guidelines, the City Planning Commission could require the project sponsor to provide units in San Francisco to meet the estimated housing demand of the project./14/ Prior to implementation of the Interim Guidelines of the City's Office Housing Production Program (OHPP) January 1982, approximately 839,000 gross sq. ft. of office space at the Executive Park site was approved under the 1978

Yerby Plan (including the approved changes to the Plan in 1980 and 1981). The office space in the proposed Development Plan Amendment represents about 311,000 gross sq. ft. more office space than approved under the Yerby Plan (1,150,000 sq. ft. minus 839,000 sq. ft.). If OHPP were to be applied to the increment of 311,000 sq. ft. of office space, estimated housing demand would be for 276 units. The OHPP estimate is based on the following assumptions: office use generates one job per 250 gross sq. ft. of space; 40% of office employees would choose to live in San Francisco; and 1.8 workers would occupy each household. This City policy applies only to office use and does not include employment generated by other types of land uses. On the basis of the employee survey data from OB 1 and OB 2, housing demand attributable to the project would be 317 units (on the basis (1982 site survey) that 37% of office employees would choose to live in San Francisco and 1.45 workers would occupy each household).

The 500 residential units provided in the project would average about 850 sq. ft. of usable space; 25% would be studio units, 50% one-bedrooms and 25% two-bedrooms. These units would entitle the project sponsor to up to 625 housing units/credits under the OHPP Interim Guidelines. The remaining 349 housing units/credits could be applied to future office development by the sponsor. As housing would be built after the offices are constructed, housing demand attributable to the project would not be met on-site until the last phase of development in 1995.

The phasing of the housing (Phase Eight, the last of a ten-year buildout) would not conform strictly to the OHPP Interim Guidelines, as the Guidelines require that housing units be provided prior to issuance of a final certificate of occupancy for office buildings. The project, as proposed, would provide about 1.15 million sq. ft. of occupied office space prior to construction of housing. According to the project sponsor, an analysis of housing market opportunities at the Executive Park site indicates that to be successful, marketing of housing would need to occur during the later phases of construction. Prior construction of office, hotel and retail uses would provide a sufficient scale and mix of uses to support 500 units of housing. The proposed commercial uses would also establish a destination image for the project that would enhance the market for housing at the site./17/



The prices of proposed units would range from \$85,000 for the studios, to \$110,000 for the one-bedrooms, to \$125,000 for the two-bedrooms (in 1983 dollars). Section 1341 of the San Francisco Subdivision Code requires provision of 10% low- and moderate-income housing in projects of more than 50 dwelling units, if subsidies are available. On the basis of this requirement, maximum purchase prices for the low- and moderate-income units would range from \$42,700 to \$64,100 for studios, \$48,800 to \$73,300 for one-bedrooms, and \$54,900 to \$82,400 for two-bedrooms (all 1982 dollars)./18/ The project sponsor could meet this requirement by lowering the proposed prices for 10% of the on-site units, provide an equivalent number of low- and moderate-income units off-site, or make an in-lieu payment to the City./18/

### Housing Affordability

In order to determine housing affordable to households created by an increase in San Francisco office space, the following factors must be considered: 1) the number of new households generated as a result of the increase in office space; 2) the location preference of these households; and 3) the ability of these households to pay for housing. Precise quantification of project impacts on the housing market is not possible based on available published information. A study of the "Feasibility of Performing a Housing Affordability Analysis" by Questor Associates (June 15, 1982) concludes that household income of project employees, distribution of housing demand, and magnitude of new demand can be precisely determined only by surveying occupants of buildings comparable to a particular office project./15/ Such a survey would be complex and may not reveal all data that would be necessary for a complete analysis. The survey done for this project did not ask detailed financial questions required for such an analysis of housing affordability.

A limited analysis of housing affordability, based on available data, appears in Appendix H, and Table H-3 pp. 230-233. Data in Table H-3 rely upon published sources of office worker incomes (not household income), and published sources of housing prices (not necessarily existing vacant units). Assumptions are made regarding ratio of housing expenses to income, mortgage interest rates, and down payments. Analysis based on these data and assumptions indicate that most project employees would not be able to afford ownership housing in San Francisco, although some employees, depending on the number

of workers per household, would be able to do so. Most project employees, except the lowest-paid clerical employees desiring to live alone, would be able to afford rental housing in San Francisco.

On the assumptions of 30-year fixed rate mortgages with 15% interest rates and a 20% downpayment, monthly mortgage payments for the project residential condominiums would be about \$860, \$1,120, and \$1,270 for studio, one-bedroom, and two-bedroom units, respectively. A lower mortgage interest rate would result in slightly lower monthly payments (e.g., at 12% interest, monthly payments for a one-bedroom unit would be about \$910.00). A variety of published sources give salaries for various occupational categories, but no comprehensive data regarding the distribution of household income among office workers (or any other group of workers) exist. With allowance of 30% of gross income for mortgage expenses, required annual household income would range from about \$34,000 to \$50,600 and would average about \$44,500 for condominium purchasers. As shown in Table 12, p. 124, about 60% of households of existing office workers earn more than \$25,000 and about 22% earn \$50,000 or more. Should the earnings of households of project workers reflect the incomes of existing employees' households, then fewer than half of project employees could afford to live on the site.

Available data indicate that office employees generally have higher wages than hotel, retail, and maintenance workers. It seems probable that non-office project employees would generally be less able to afford ownership housing than office workers. A greater proportion of non-office employees would probably enter the rental housing market than would that of office employees.

### FISCAL

The following fiscal impact analysis assumes full project occupancy and uses current tax rates and economic data. Revenues resulting from project implementation cannot be projected fully to 1995, the year of full project occupancy, because tax rates and fiscal considerations will undoubtedly change. Fiscal trends indicate, however, a continued decrease in state and federal aid to cities, and increasing reliance on local tax revenue sources./19/ Dollar values and tax rates are for the 1982-83 fiscal year.

### Revenues

As shown in the following analysis, the proposed project would generate about \$4.24 million (1982-83 dollars) annually in total property, payroll, sales, and gross receipts tax revenues to the City's General Fund, based on existing tax rates and current economic data. The project would generate a net increase of about \$4.23 million in revenues generated to the General Fund.

### Assessed Valuation and Property Taxes

The proposed development plan amendment would have a fair market value of about \$270 million in 1983 dollars. Under the 1982-83 property tax rate of \$1.17 per \$100 assessed valuation (assessed value equals market value), the project would generate about \$3.2 million in property tax revenue (including property taxes from residential units). About \$2,700,000 would be generated by the non-bond tax rate of \$1 per \$100 assessed value; of this amount, about \$2,360,000 would accrue to the City's General Fund, a net increase of about \$2,350,000. The complete distribution of total bond and non-bond property tax revenue that would be generated by the project is shown in Table 14, below.

### Payroll / Gross Receipts Tax

Office and retail tenants of the proposed project would pay either the payroll or gross receipts tax, whichever is greater. On the assumptions that all tenants would pay a payroll tax, an estimated annual payroll of about \$120 million,<sup>/20/</sup> and a tax rate of 1.5%, payroll tax revenues from the project would be about \$1,535,000 (1982 dollars).<sup>/21/</sup> The owners of the project would pay a 0.3% gross receipts tax on their rental income. The estimated total annual rental income from the office uses of the project would be about \$27 million (1982 dollars), yielding a gross receipts tax revenue of about \$81,700 (see Table 15, p. 134).

### Sales Tax

Sales tax revenue would be generated by both employee expenditures and on-site retail sales. On the basis of an annual payroll of about \$120.4 million, taxable expenditures would be about \$5.29 million.<sup>/22/</sup> Based on annual sales per sq. ft. of \$120 for the retail



TABLE 14: DISTRIBUTION OF PROPERTY TAX REVENUES FROM THE PROJECT SITE IN 1995 (1982-83 dollars)

<u>Agency</u>	<u>Ad Valorem Tax Rate*</u>	<u>Percent*</u>	<u>Revenues**</u>
City and County of San Francisco			
General Fund	0.874	74.7	\$2,360,000
Open Space Acquisition	0.025	2.1	67,500
Bond Repayment	0.099	8.4	267,000
S.F. Community College District	0.014	1.2	39,000
S.F. Unified School District			
General Purpose	0.078	6.7	210,000
Debt Service	0.008	0.7	22,600
Bay Area Air Quality Management District	0.002	0.2	5,600
BART			
General Fund	0.006	0.5	17,100
Debt Service	<u>0.063</u>	<u>5.4</u>	<u>170,000</u>
TOTAL	\$1.17	100.0	\$3,159,000

\* Sum of column entries does not equal 100% because of rounding.

\*\* Based on the 1982-83 composite tax rate of \$1.17 per \$100 assessed valuation and an assessed valuation of \$270 million (rounded to the nearest \$100).

SOURCE: San Francisco Controller's Office; calculations by Environmental Science Associates, Inc.

space, taxable on-site sales would total about \$5.4 million. Annual sales tax revenue to the General Fund from the 1.25% sales tax would total about \$133,600 (1982 dollars).

#### Hotel Tax Fund

On the basis of annual hotel room sales revenue of about \$5.75 million (assuming 75% occupancy) and a 9.75% hotel room tax rate, the hotel portion of the project would generate about \$560,500 in hotel room tax revenue. Of this amount, approximately

TABLE 15: DIRECT NET TAX REVENUES GENERATED TO THE GENERAL FUND FROM THE PROPOSED PROJECT

Tax Category	REVENUES			Net Increase*
	Existing Tax Rates (1982-83)	Existing Site	Proposed Project*	
Property Tax	85.2% of \$1.17/\$100 fair market value	\$8,800	\$2,360,000	\$2,350,000
Payroll Tax	1.5% of gross payroll expenditures	0	1,535,000	1,535,000
Gross Receipts Tax	0.3% of total rental income	0	82,000	82,000
Sales Tax receipts	1.25% of gross retail	0	134,000	134,000
Hotel Tax	25% of the 9.75% tax on hotel room receipts	0	140,000	140,000
Totals*		\$8,800	\$4,251,000	\$4,241,000

\* Rounded to nearest \$1000.

SOURCE: Environmental Science Associates, Inc.

\$140,100 (1982 dollars) would accrue to the City's General Fund. The distribution of hotel room tax revenues is shown in Appendix H, Table H-2, p. 229. Future distributions of hotel tax revenue accruing to the General Fund would change, as these revenues are determined each year by the Board of Supervisors.

The net increase in direct revenues that would be generated by the project is \$4.2 million, as shown in Table 15, p. 134.

#### Muni and Transportation-Related Costs and Revenues

The estimated 1980-81 (most recent Muni estimate) net marginal cost (or increase in the deficit) per ride is \$0.39./23/ The project would generate about 420,000 rides per year

which could generate a cost deficit to the Muni of about \$163,800./23/ The project would help pay for this deficit through its contributions to the General Fund. In the 1982-83 budget, 10% of General Fund revenues were allocated to Muni. On the basis of the net General Fund revenues that would be generated by the project, and on the assumption that 10% of General Fund revenues would continue to be allocated to Muni, the contribution to Muni would be about \$424,100 (1982 dollars) at project completion. On the basis of the marginal cost figures provided by Muni, the project would offset the annual Muni deficit generated by the project /23/ through its annual revenue contribution to the General Fund (\$260,300). This conclusion should be qualified because the Muni deficit-per-mile figure is based on 1980-81 data, the marginal cost is based on all rides and not peak-period riders, and the total project-related deficit is calculated using only those workers who would use Muni as their primary mode of transportation while excluding those workers who would use a combination of transportation modes, such as Muni and Southern Pacific. The increased ridership demand resulting from the project area could require additional Muni service (see further discussion of Muni ridership on pp. 85-87).

Muni is currently considering construction of an at-grade crossing of the Southern Pacific Railroad at Bayshore Station to provide cross-town service to the project area from the 29-Sunset line. Muni has requested a contribution from the project sponsor of about \$150,000 to finance the crossing. The sponsor has not agreed to this contribution (see p. 153 would offset the cost of the grade crossing.

Total estimated cost for roadway improvements, exclusive of the grade crossing for Muni, is about \$400,000 (1983 dollars). At this time, the sponsor has not agreed to participate in joint funding of these improvements (see p. 153). Objective 2, Policy 2 of the Commerce and Industry Element states: "Seek revenue measures which will spread the cost burden equitably to all users of City services." To be responsive to this objective, the sponsor would have to contribute equitably for the costs of roadway improvements.

### Other Costs and Net Revenues

Costs for water and sewer service would be paid through user charges. Because the project area is undeveloped, City costs for police, fire, street maintenance, and general government services would increase as a result of the project.



According to the Final Initial Study for Executive Park, existing City services for fire, police, schools, parks and recreation facilities would be adequate to serve the project (see Appendix B, pp. 205-207). If roads and street lights within the development are dedicated to the City, additional costs for operation and maintenance would be absorbed by the City. City service agencies consulted during preparation of the Initial Study were not able to estimate cost increases attributable to the project.

The project would increase the residential population of the City and hence increase general City expenses. On the basis of average household sizes of 1.0, 1.5, and 2.5 persons per unit, respectively, for the studio, one-bedroom, and two-bedroom units, the residential population of the site would be about 815. In 1982-83, per capita expenditures for the total San Francisco budget are \$2,370./24/ Total cost attributable to the residential portion of the project, with this method, is \$1,930,000. This cost estimate is high because it includes City expenditures for public welfare, health and schools, which would probably be lower on a per capita basis for project residents than for the City-wide population. An average cost analysis, used above, generally overestimates cost impacts in cities with unused service capacities and declining populations.

On the basis of the cost estimates above, it is likely that project-generated net revenues (about \$4.2 million) would exceed projected costs.

### CUMULATIVE EFFECTS

#### Housing

The proposed project would contribute to cumulative housing demand in the City. Applying the results of a survey of existing employees at OB 1 and OB 2 indicates that about 1,275 households would be formed in the City by total project employees. In addition to project demand, up to 16,400 new households would be formed in San Francisco as a result of the net increase of 18.4 million gross sq. ft. of office space in the downtown, based on the Office Housing Production Program (OHPP) Interim Guidelines (40% of office employees live in San Francisco and 1.8 workers per household). Cumulative housing impacts on Bay Area counties are summarized in Appendix H, Table H-4, p. 234

This impact on the housing market would be mitigated to a certain extent because various office developers have agreed to provide units, through City Planning Commission final approval resolutions, or have proposed units on-site./25/

Cumulative office development would increase the City's current high ratio of jobs to housing supply. In market situations where demand exceeds supply, prices can be expected to increase. Factors independent of office development and outside the control of the City, for example immigration, interest rates, State and Federal tax policies, and economic trends, also influence the housing market. Quantification of the effects of cumulative office development on San Francisco housing prices is not possible.

The new demand could be accommodated through additions to the housing stock, increases in the number of workers per household, and/or displacement of existing residents. Large additions to the San Francisco housing stock are not anticipated in the near future because the housing construction industry has declined due to high costs and interest rates. Census data indicate that the number of persons per household historically has been declining. This demographic trend will probably not reverse itself in the next few years, because of a variety of factors, including divorces and separations, departure of young adults from families, and the increasing proportion of elderly population. The possibility exists that gentrification -- the replacement of low-income households by more-affluent ones -- could occur throughout the City as more-affluent households compete for housing./26/

### Fiscal Considerations

Cumulative development in the project vicinity may necessitate improvements to City services. It is difficult to estimate the cost of the improvements attributable to a single project. Revenues to the City would probably increase at a slower rate than costs, because of limitations on property tax increases imposed by California Constitution Article XIII A (Proposition 13). There would be an initial fiscal benefit of new office developments, then there could be a time when cumulative costs of providing services to currently proposed and approved development would be higher than revenues provided. This would be the case only if no new revenue sources are found, the rate of new development declines, and proposed development is not sold at some future date. In general, residences change ownership more frequently than commercial property. Thus



residential condominiums would be reassessed more frequently and would yield future increases in tax revenue to offset increases in City services costs.

NOTES - Employment, Housing and Fiscal Factors

/1/ Projections are based on an Input-Output Model of the Bay Area economy from Cooperative Extension Service, University of California, Berkeley, San Francisco Bay Area Input-Output Model 1967-1974, July 1978. A multiplier of 1.55 was used for construction.

/2/ Hans Wachsmuth, Jr., Vice President Equal Opportunity Offices, Williams & Burrows, Inc., letter, December 4, 1980.

/3/ This conclusion is similar to data contained in 466 Bush Street Final EIR, EE 81.175E, certified August 20, 1982, pp. 41-42.

/4/ California Employment Development Department, "California Labor Market Bulletin, Statistical Supplement," August, 1981.

/5/ The median income of employees at the San Francisco Hilton Hotel was \$11,200 in 1979. See Tower No. 2 San Francisco Hilton Hotel Final EIR, EE 79.257, SCH No. 80093004, certified January 29, 1981.

/6/ The net increase of 18.4 million gross sq. ft. of office space in downtown San Francisco includes, as of June 1, 1983, 4.1 million sq. ft. of space under formal review, 5.2 million sq. ft. that was approved, 6.1 million sq. ft. which is under construction in the downtown, and 3.0 million sq. ft. which was recently completed.

/7/ Existing Peninsula office space and rental rates from "The Commercial Real Estate Market in The San Francisco Bay Area" Coldwell Banker, December 1982. The total square footage of office developments proposed and under construction is summarized in Appendix D, Table D-3, p. 219.

/8/ Department of City Planning memorandum to the City Planning Commission, "South of Market Interim Controls," January 26, 1982.

/9/ San Francisco Convention and Visitors Bureau, "San Francisco Bristles with Hotel Blueprints," November, 1981.

/10/ Dale Hess, General Manager, San Francisco Convention and Visitors Bureau, telephone conversation, November 27, 1981. About 14,000 hotel rooms in the City cost \$60 or more per night. Percent calculation based on 4,297 additional rooms by 1985 (see footnote /9/), all costing at least \$60 per night.

/11/ John G. Steen, Executive Director, San Mateo County Convention and Visitors Bureau, telephone conversation, January 12, 1983.

/12/ San Francisco Convention and Visitors Bureau, 1980 Annual Report. Visitor expenditures are based on a 75% occupancy rate and 1.62 persons per room, leading to an average of approximately 155,000 visitor nights per year.

/13/ A copy of this survey questionnaire is contained in Appendix D, Figure D-1, p. 214. The survey results are available for review at the Office of Environmental Review, 450 McAllister St., 5th Floor, San Francisco.



/14/ The San Francisco Office/Housing Production Program, January, 1982, (1,150,000 sq. ft./250 sq. ft./ employee x 40% live in San Francisco/1.8 workers per household = 1,022 households).

/15/ Questor Associates, Feasibility of Performing a Housing Affordability Analysis, June 15, 1982.

/16/ Mills-Carneghi Inc., "Executive Park Marketing Study", August 22, 1980.

/17/ Tim Kelly, Keyser Marston, telephone conversation, July 15, 1983.

/18/ Department of City Planning Memorandum, "Low and Moderate Income Housing and the Condominium," November 12, 1981.

/19/ San Francisco Chamber of Commerce, San Francisco's Strategic Plan: Phase II Management Summary, September 1982, pp. 28-36.

/20/ Total payroll calculations as follows: (for source of number of employees, see Table 11, p. 123)

office:	=	4,600 employees x \$25,000 = \$115,000,000
non-office:	=	395 employees x \$13,700 = \$5,411,500
total payroll	=	\$120,411,500

/21/ San Francisco Ordinances 275-70 and 245-68 exempt banks, insurance companies, and owners of businesses with tax liabilities less than \$2,500 from paying business taxes. Hence 15% of projected employees were excluded from the calculation of payroll tax.

/22/ Taxable expenditures per office worker within the downtown were \$715 per year based on income of \$16,300 in 1974 (San Francisco Planning and Urban Renewal (now Research) Association) (SPUR), Impact of Intensive High Rise Development in San Francisco, Detailed Findings, June 1975. The ratio of taxable expenditures to income was 0.0439.

/23/ According to Bruce Bernhard, Muni Chief Accountant, telephone conversations, August 10 and 23, 1982, the average \$0.39 deficit per ride is based on 1980-81 Muni budget figures of an additional cost per ride (marginal cost) of \$0.71 and an average fare revenue per trip of \$0.32. Muni is unable to provide more recent data on cost and revenue figures per passenger. Annual Muni ridership for Executive Park is estimated at 420,000. The operating deficit due to the project would be: 420,000 rides per year x \$0.39 deficit per ride = \$163,800 annual Muni deficit.

/24/ Based on a projected 1982-83 budget of \$1,607 million and a 1980 population of 678,974.

/25/ "The San Francisco Office/Housing Production Program," August 19, 1982.

/26/ Report of the Citizens Housing Task Force, San Francisco, July 29, 1982 and Berkeley Planning Associates, Displacement in San Francisco, September 2, 1980.

**K. GROWTH INDUCEMENT**

Project implementation would add a total of 1.85 million sq. ft. of floor area at the Executive Park site, including 1.15 million sq. ft. of office space, 45,000 sq. ft. of retail/restaurant space, 234,000 sq. ft. of hotel/meeting space (350 rooms), and 425,000 sq. ft. of residential space (500 units). The proposed height reclassification from the 230-G Height and Bulk district to the 165-I district would not increase the maximum development potential on the site because the maximum square footage would be restricted by the basic allowable FAR, which is 3.6:1 within the project area.

Utilities would have to be extended to the project site, but these extensions would not increase the capacity for serving the project area or nearby vacant developable sites. Future expansion of Muni and SamTrans service to the site, and proposed street improvement described in VI. Mitigation Measures, p. 150, could encourage additional growth and expansion of commercial and residential development in the project vicinity, and in Brisbane. Muni had identified the Bayshore Corridor as a target area for growth and long-range planning (1990-2000) of transit service. Proposed developments, such as Executive Park and the 200-acre Mission Bay Project, are earmarked as developments that would require expanded transit service.

The project would provide employment opportunities for about 5,000 people and would accommodate about 815 residents. Including that from existing OB 1 and OB 2 and approved OB 3 and OB 4, total permanent on-site employment would be about 7,000 jobs. This intensification of on-site land use and population may have growth-inducing effects on the area surrounding the site. The extent of this impact would be modified by the physical separation of the site from residential areas, and because the site is bounded on the east and south by public open space and Candlestick Park Stadium. Increased disposable income on the site would have spillover effects in the surrounding neighborhoods. Retail stores and restaurants in this area, particularly along Bayshore Blvd., Leland Ave., San Bruno Ave., and Third St. may receive increased sales because of purchases by project office workers, permanent residents, and hotel guests. This demand stimulus may create incentive for additional retail stores and restaurants to open in the project vicinity.

The project could have growth-inducing effects in the industrial area southwest of the site along the Brisbane - San Francisco border and along the Bayshore Corridor. Some



parcels in this area are under-used or vacant. If the project is built and occupied, developers could perceive this area to be appropriate for land uses similar to the project, primarily office space. This perception may have already begun, as evidenced by the proposed office development on the site and in Brisbane. As discussed in Section IV, Land Use, pp. 33-34, Southern Pacific and the City of Brisbane anticipate the development of an industrial park as well as office space in the project vicinity. If the project's office space achieved a high occupancy rate, additional office development in this area could become more attractive than industrial development. If Candlestick Park Stadium is removed, commercial development and improved transit service in the project vicinity could encourage a higher-intensity use of the Stadium site. The area east of Candlestick Park Stadium is under the jurisdiction of the State and is proposed for the Candlestick Point State Recreation Area and would not be subject to future development.

The potential stimulus to office development near the site resulting from the project would be moderated to the extent that the supply of office space in San Francisco and the Peninsula exceeds the demand for office space over the next decade. Such an oversupply could occur if demand for office space decreased and if uncertain business conditions continue.

Many project workers would desire to live in San Francisco. Employment growth would not correspond directly to increases in demand for housing and City services to residents, because some new jobs would be held by individuals who already live and work in the City, or who live in the City but who previously either did not work or worked outside the City, or by those who would live in surrounding communities and would not desire to move to San Francisco. To the extent that the project increases the demand for housing in the City, new San Francisco residents would increase demand for commercial, social and municipal services. This increased demand would have a tendency to increase City residential rents, and housing sales prices. Its influence on future housing costs cannot be stated conclusively because housing prices are affected by a variety of factors, including household size, construction costs, land values, and interest rates.

Demand for housing in adjacent residential neighborhoods may be generated by the increase in on-site employment. Housing in the area could be attractive to project employees because it would be close to their workplace and it is generally more affordable than in other locations in the City. The Bayview Hunters Point neighborhood



is topographically separated from the site by Bayview Hill, and the Little Hollywood and Visitacion Valley neighborhoods are separated from the project by US 101, thereby moderating direct growth-inducing effects./1/ While many factors affect land values and displacement, the possibility exists that, as a result of the project development, property values in these neighborhoods could increase and existing households could be displaced. These potential growth factors, however, would be limited because the surrounding neighborhoods are predominantly owner-occupied by long-time residents./1/

### NOTE - Growth Inducement

/1/ Based on telephone conversations with the following Real Estate Brokers: Dick Johnson, Red Carpet Realty; Robert Goodin, Goodin Realty; and Theresa Johnson, Goodin Realty, all on April 11, 1983.

## L. COMMUNITY PARTICIPATION

The following section is not required by the California Environmental Quality Act (CEQA). It is included here for informational purposes.

### COMMUNITY INVOLVEMENT

When Campeau Corporation California purchased the Executive Park site in December 1979, a representative of the firm began meeting with the Executive Park Advisory Committee. This Committee consists of six representatives from the Bayview Hunters Point area, three from Little Hollywood, and three from Visitacion Valley. The Advisory Committee had been formed in 1975 as part of the planning for the later-approved 1978 Yerby Plan. Campeau states that from December, 1979 through August, 1983, it has had ongoing meetings with the full Advisory Committee and, on separate occasions, with individual members of the Committee. The agendas of the meetings covered a wide range of topics concerning the Executive Park operation and construction plans, and the proposed Development Plan Amendment.

Campeau reports that it has presented the proposal to the Advisory Committee, seeking its input, since the beginning of the planning process for the proposed Development Plan Amendment. The Advisory Committee has remained involved throughout the planning process, and several aspects of the currently proposed plan reflect the Committee's input,

including provisions for discouraging use by project traffic of Blanken Ave., and an increased commitment to implement the Transportation System Management (TSM) Plan (see p. 149 and p. 152).

In the spring of 1983 the project sponsor retained three consultants/planners, one of whom is an expert in traffic/transportation issues, to work with individuals and organizations in addition to the Advisory Committee. According to Campeau, these consultants have been meeting with individuals and organizations throughout the community, presenting proposed plans and asking for ideas regarding the proposed development plan changes. Organizations include the Visitation Valley Improvement Association, Clean Water Program, Little Hollywood Board of Directors, Shafter Avenue Community Club, New Bayview Committee, Little Hollywood Improvement Association, Bayview Hunters Point Coordinating Council, Bayview Merchants' Association, Bayview Hunters Point Joint Housing Committee, and Friends of Candlestick Park. As of August, 1983, Campeau reports the three consultants, along with other company representatives, have met with 21 key individuals in the three communities, have attended 14 regularly scheduled community meetings, have presented the proposed Development Plan Amendment, and have solicited input from nine community-based organizations. Written materials on the project have been distributed at fourteen public meetings, according to Campeau.

### COMMUNITY CONCERNS

According to Campeau the major areas of concern and interest expressed by community residents are traffic, particularly the combined effects of Candlestick Park traffic and project traffic; and increased employment opportunities, both construction and permanent jobs. Specific concerns and interests expressed by neighborhood residents are as follows:

Bayview Hunters Point. Campeau states that, as with the other neighborhoods, residents of Bayview Hunters Point do not want increased project traffic in their neighborhood, especially if it is compounded with traffic from Candlestick Park. The provision of job opportunities for residents is of utmost interest to Bayview Hunters Point residents (see Section V. Mitigation Measures, p. 160). These residents believe that employment priorities, at the project, should be given to neighborhood residents for both construction and permanent jobs. The project sponsor has given and will continue to give priority to neighborhood residents for employment (see Section V. Mitigation Measures, p. 160). The

## V. Environmental Impacts

type of housing that would be built is another topic of concern. Some residents feel that moderate-priced housing should be provided at the site while others feel that only market-rate housing should be provided.

Little Hollywood. Campeau indicates that residents of the Little Hollywood neighborhood are concerned primarily with the amount of additional traffic and construction truck trips, in their neighborhood, that would be generated by the project, particularly on Blanken Ave. The sponsor has proposed a mitigation program that would minimize the increase in traffic on Blanken Ave. (see Section VI, p. 152).

Transportation was a primary concern of these residents, particularly project-generated traffic in conjunction with added traffic during events at Candlestick Park Stadium. Additionally, Little Hollywood residents believe that employment opportunities generated by the project should be offered to residents of the neighborhood. The issues of density, scale and market value of housing proposed on the site have been raised by Little Hollywood residents. Residents believe that quality, market-rate housing should be constructed and that no low- or moderate-income housing should be built on the site.

Visitation Valley. Campeau believes that the primary interests of residents of the Visitation Valley neighborhood are those of employment opportunities, and traffic impacts of the project on Visitation Valley.

Public hearings will be held by the City Planning Commission on the adequacy and accuracy of the Draft EIR, and on the merits of the proposed Development Plan Amendment. Neighborhood residents and others will have an opportunity to express their concerns about the project at that time.



## VI. MITIGATION MEASURES WHICH WOULD MINIMIZE THE POTENTIAL IMPACTS OF THE PROJECT

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Several measures have been identified in this EIR which would reduce or eliminate potential environmental impacts of the proposed project. In addition, many of the measures previously identified in the the 1976 Final EIR or required by the City Planning Commission as conditions for development of the Executive Park site (Resolution Nos. 7547 and 9089) would remain applicable for the project.

Some of the measures required by Resolution Nos. 7547 and 9089 have been already implemented during development of OB 1 and OB 2; those measures are included in the project description and the description of setting conditions. Measures which remain applicable, but have not yet been implemented, are discussed below. Required measures which are no longer applicable because of changes in City policies and project design have not been included. Specifically, mitigation measures listed in this chapter include:

- New measures identified in this EIR and the Initial Study to reduce potential impacts of the proposed project;
- Applicable measures identified in the 1976 San Francisco Executive Park Final EIR (summarized and incorporated by reference); and
- Applicable measures required by the City Planning Commission as conditions of approval of the 1978 Yerby Development Plan and of design changes in 1980 and 1981 (Resolution Nos. 7547 and 9089). These measures are summarized and incorporated by reference.

Some or all of the measures contained in this EIR for the proposed project could be required by the City Planning Commission as conditions of approval of the revised Executive Park Master Plan. Specific design mitigation measures are not included because the project is at a conceptual level of design; such measures could be identified and considered by the Department of City Planning and the City Planning Commission as part of the discretionary review and building permit process.

A. LAND USE AND ZONING

MEASURES PROPOSED AS PART OF THE PROJECT

- In accordance with the objectives of the Environmental Protection Element of the Comprehensive Plan, approximately 27 acres (55%) of the total site area would remain in open space on the upper slopes of Bayview Hill to provide continuous open space with Bayview Park.

MEASURES NOT INCLUDED AS PART OF THE PROJECT

- Area 3 housing could be moved further east so that landscaping and trails could be installed east of Executive Park Boulevard East. This would provide a more-apparent public parklike connection between Bayview Hill Park and Candlestick Point State Recreation Area.

APPLICABLE MEASURES REQUIRED BY RESOLUTION NO. 9089

- The sponsor would build a permanent hiking trail linking the public open spaces in the Executive Park development with Bayview Park to be open for public use during daylight hours. This measure would be implemented when the hillside portions of the site are developed.
- The sponsor would (subject to State approval) participate in the development of the Candlestick Point Recreation Area to assure that the portion of the State Park property that links with the Executive Park development across Harney Way to the southeast is improved. Campeau Corporation California is currently working with the State to develop a shoreline park south of the site between US 101 and Jamestown Ave. Ext./1/

NOTE - Land Use and Zoning

/1/ Jay Mancini, Director of Commercial Development, and Craig Scheidt, Assistant Project Manager, Campeau Corporation, California, June 2, 1982, letter report to Peter Dangermond, Director of California Department of Parks and Recreation. This report is on file and available at the Office of Environmental Review, 450 McAllister St., 5th Floor.

**B. URBAN DESIGN AND VISUAL QUALITY**

MEASURES PROPOSED AS PART OF THE PROJECT

- Proposed structures would be stepped back into the hillside to reduce their bulk and maximize views of the upper slopes of Bayview Hill.
- Proposed landscaping, erosion control and hydroseeding measures (see pp. 158-160) would repair the damaged slopes of Bayview Hill and help return it to its natural condition.
- Streets and the embankment of US 101 would be landscaped.
- Building heights would not obscure views above the 230-ft. elevation, thereby preserving Bayview Hill as the predominant physical feature of the site, which reaches an elevation of 390 ft. within the project area.
- Structures in the western part of the site, near US 101, would be lower in height than structures on other portions of the site. Lower heights in this area would preserve view corridors to Bayview Hill and the Bay. This stepped configuration would also provide more of a transition in scale from the Little Hollywood area to the shoreline than would the 230 ft. tall structures approved under the Yerby Development Plan. See also I. Ecology, pp. 158-160 for hillside landscape measures which would mitigate visual impacts.

**C. WIND**

MEASURES PROPOSED AS PART OF THE PROJECT

- To shelter visitors from unobstructed wind flows at the hillside restaurant, mature landscaping features (trees, shrubbery, bushes) would be installed in the Area 3 housing complex, and building walkways and entrances along Executive Park Blvd. North. This would decrease average wind speeds at the restaurant.



## VI. Mitigation Measures

### APPLICABLE PROPOSED MEASURES IDENTIFIED IN THE 1976 FINAL EIR

- Provide landscaped windbreaks with berms, trees, and other vegetation along pathways, plazas, and waiting areas.
- Relocate building entrances to sunnier locations on the leeward sides of buildings and install double or revolving doors to minimize wind penetration.
- To mitigate the effects of the marine environment corroding the exteriors of buildings, select outdoor materials for their ability to withstand airborne salt and chemicals.
- Design buildings to control water runoff over their surfaces, particularly where corrosive contaminants caused by salt water in the air could collect.

### D. TRANSPORTATION, CIRCULATION AND PARKING

By encouraging transit use, carpools, and transit expansion, the following mitigation measures would meet the general intent of the objectives of the Urban Strategy Program in California./1/

### MEASURES PROPOSED AS PART OF THE PROJECT

- The sponsor would provide the recommended off-street loading and service space contained in Exhibit A of City Planning Commission Resolution 9286. That resolution requires more off-street loading than the existing City Planning Code.
- As the project becomes fully occupied, the sponsor would work with SamTrans to provide service for on-site bus stops by SamTrans mainline express routes. In July 1981, the sponsor and SamTrans surveyed the tenants of OB 1 to determine the demand for transit service to the site.

On the basis of that survey, SamTrans indicates that the current demand does not warrant providing mainline express service. The sponsor and SamTrans will re-evaluate the need to provide mainline service to the site as the project becomes fully occupied and developed.

## VI. Mitigation Measures

- The master plan design would provide sufficient roadway widths and turnaround to accommodate future Muni expansion to serve the housing complex (Area 3) on the eastern side of the project area.
- The project sponsor would maintain and expand shuttle service to the Executive Park site from the downtown (e.g. from the TransBay Terminal and Southern Pacific Depot), as required by the demand for such service by project employees. The need to continue or expand shuttle service would be reviewed annually by the Department of City Planning and the project sponsor.

### APPLICABLE MEASURES REQUIRED BY RESOLUTION NOS. 7547 and 9089

- The sponsor would employ a transportation broker, whose responsibility it would be to work with building tenants and employees, the Department of City Planning, RIDES for Bay Area Commuters, Muni, SamTrans, and other agencies to prepare and implement Transportation System Management (TSM) programs for the entire Executive Park site, which would include, but not be limited to: designation of preferential parking spaces for carpools and vanpools (three or more occupants per vehicle). These spaces shall be those closest to building entrances, and the initial number of preferential parking spaces shall be based on current percentage of on-site employees who rideshare, as demonstrated by an employee survey. There would be on-site sales of BART tickets and Muni passes, with a good-faith effort to encourage employer subsidy of transit passes or other employer-provided incentives to use transit.
- Within six months after full occupancy of each building, the transportation broker shall submit to the Department of City Planning a preliminary report which outlines TSM program activities and progress to date, and which outlines a proposed long-range TSM plan for implementation as the project nears completion. Such a [long-range] plan shall include, but not be limited to, such actions as: increasing the number of preferential parking spaces for carpools and vanpools; providing direct transit service into the Executive Park site by Muni and SamTrans, as the level of employee population warrants; instituting shuttle services to the site from the BART station and the Southern Pacific depot, as employee population warrants; instituting flex-time or alternative work schedules by various tenants to minimize peak-hour traffic congestion related to the site.

Campeau Corporation California has on-going efforts to implement the two transportation management measures listed above. A complete list of transportation management measures that have been implemented by Campeau Corporation California through June 1983 is described in a letter report to the Department of City Planning, dated June 28, 1983. That report is on file and available for public review at the Office of Environmental Review, 450 McAllister St., 5th Floor.

### MEASURES THAT COULD BE IMPLEMENTED BY PUBLIC AGENCIES

- Muni is currently considering extension of the No. 29 Muni bus line to the Executive Park Site. If this extension occurs, traffic generated by the project might be decreased. The bus could carry proposed project employees directly to the Leland Ave. shopping area and Southern Pacific Bayshore Station and the Balboa Park BART. While traffic to the proposed Candlestick Point State Recreation Area should be minor, the suggested No. 29 extension could bring urban residents to the park. A restricted (limited to Muni vehicles) grade crossing and street extension would be required at Sunnydale Ave.
- SamTrans could provide transit service to bus pads at the Alana Way and Harney Way interchanges that could be installed by CalTrans. There would be a question about pedestrian safety at the Harney Way interchange, as persons using the bus pads would have to make an unsignalized crossing of one of the ramp roadways. This condition would not occur at the Alana Way interchange, as the intersection of Alana Way and Beatty Ave. would be signalized in the future (see measure below).
- To achieve the "with improvements" Levels of Service shown in Table 6B, p. 91, construction of several roadway improvements would be necessary. Because the project and local cumulative development in Brisbane would be built over a ten-year period, the roadway improvements would not need to be made at once. Rather, staged improvements following periodic review of traffic conditions would be appropriate. A staged implementation program to construct roadway improvements (including roadway widths) is shown in Table 16, p. 151.
- Signalization should be provided when warranted by traffic volume increases at the intersections of Alana Way at Executive Park Blvd. West (Department of Public



TABLE 16: ROADWAY IMPROVEMENTS (APPROACHES TO INTERSECTION)

Intersection	Northbound		Westbound		Southbound		Eastbound	
	Lanes*	Width**	Lanes	Width	Lanes	Width	Lanes	Width
Harney Way & Executive Park Blvd. West Extension (SFDPW, CalTrans)***	4	44	4	44	3M	48	N/A	N/A
Harney Way / Alana Way & Thomas Mellon Dr. (SFDPW)	4	44	6	66	4	54	4	48
Alana Way & Executive Park Blvd. West (SFDPW)	4	48	5	60+	5	60	5	60
Beatty Ave. & Alana Way (Brisbane) / SB 101 ramps (CalTrans)	N/A	N/A	5	70++	5	70	4M	70
Harney Way & Executive Park Blvd. East (SFDPW)	N/A	N/A	5	55	4	44	5	55
Executive Park Blvd. West & Blanken Ave. (SFDPW)	4	48	2	24+++	4	44	2	24+++

\* Lanes required for two-way travel; M denotes that a median is included in the width measurement.

\*\* Curb-to-curb width for two-way travel.

\*\*\* Agency or jurisdiction in parentheses would be responsible for an improvement. SFDPW is the San Francisco Department of Public Works.

+ Requires widening the freeway underpass approximately 12 ft. (approximate cost of \$250,000).

++ Requires widening the southbound off-ramp to three lanes from one lane and restriping the southbound on-ramp.

+++ Represents narrowing of existing streets.

SOURCE: DKS Associates, and Environmental Science Associates

Works) and Alana Way at Beatty Ave. / Southbound US 101 ramps (Brisbane / CalTrans). Cost of installation would be approximately \$300,000.

## VI. Mitigation Measures

- To discourage use of Blanken Ave. in Little Hollywood by workers, residents, and visitors of the project, Executive Park Blvd. North could be rebuilt as a pedestrian / transit street (with a narrow, two-lane travel way) and Thomas Mellon Drive could be a pedestrian/local-access road north of the Thomas Mellon Drive circle. The intersection of Blanken Ave. and Executive Park Blvd / North Loop Road could be designed as two offset "Ts". This measure would be under the jurisdiction of the Department of Public Works.
- The project could result in overflow parking in the adjacent Little Hollywood neighborhood. This impact could be alleviated by the institution of a preferential parking program in Little Hollywood.
- To reduce the impact of project traffic as it would enter US 101, CalTrans could install and maintain ramp-metering signals with by-pass lanes for high-occupancy vehicles (carpools, vanpools) and transit vehicles.
- The San Mateo County Transit District (SamTrans) could amend the County Transit plan to recommend SamTrans bus connections to the proposed project.

## MEASURES NOT INCLUDED IN THE PROJECT

- On days that events are scheduled at Candlestick Park, the San Francisco Police Department could close two of the three (or all three) access points to Executive Park (Executive Park Blvd. East and Thomas Mellon Drive at Harney Way) while leaving the access at Executive Park Blvd. West and Alana Way open. This measure is designed to reduce the effect of increased Candlestick Park traffic on Blanken Ave. that might result from the additional streets provided by the project. Implementation of this measure may require police control at Blanken Ave. This measure has several variations which are being explored by the project sponsor for opportunities to reduce the effect of project and Candlestick Park traffic on adjacent residential neighborhoods.
- The project sponsor could establish a parking charges differential rate structure for ridesharing to encourage car and vanpooling and transit use. Charges would be applied to low-occupancy vehicles. Revenues from parking charges could be used to offset costs of implementing a Transportation Systems Management (TSM) program.

Implementation of this measure would reduce auto use, and therefore reduce traffic impacts of the project.

The sponsor has rejected this measure for several reasons. First, the sponsor believes that implementation of a differential rate structure would cause drivers to park in nearby neighborhoods, especially in Little Hollywood, to avoid paying parking fees. Second, parking fees would discourage potential tenants, thereby undermining the vitality and feasibility of the project. Third, competing nearby sites that would not have parking fees would gain a competitive advantage over the project. Finally, the sponsor has, and would continue to implement an TSM plan to encourage alternatives to auto use.

- The project sponsor could contribute \$150,000, as requested by Muni, toward construction of a restricted at-grade crossing of the Southern Pacific Railroad mainline to be used by the re-routed 29-Sunset line. This measure has been rejected by the sponsor because, while implementation of the measure would benefit the Executive Park project, it would also benefit the general public. The sponsor believes that it would not be equitable for it to be the sole provider of such improvements and that it is more appropriate for this measure to be funded publicly./2/ The project would provide additional annual net revenues to Muni of approximately \$260,300 (see p. 135). These revenues would offset the one-time contribution of \$150,000 for an at-grade crossing.
- The project sponsor could fund the construction of street and ramp improvements in the project area (see p. 150 and Table 16, p. 151 for a description of these improvements). Alternatively, as other proposed developments occur in the project vicinity, the project sponsor could participate in a joint funding mechanism with known and future developers and public agencies that would benefit from the roadway and ramp improvements. It is uncertain if all cumulative development proposed in Brisbane would be built. Therefore, it is not feasible at this time to fully assess the ultimate roadway improvements that may be needed and for the project sponsor to commit to participate in an undefined funding mechanism./2/

### NOTES - Transportation, Circulation and Parking

/1/ Office of Planning and Research, State of California, An Urban Strategy for California, February 1978. This report recommends long-range planning goals and objectives for managing urban growth in California.



## VI. Mitigation Measures

/2/ Jay Mancini, Director of Commercial Development, Campeau Corporation California, and Timothy Tosta, Legal Counsel for the San Francisco Executive Park project, telephone conversations, July 14, 1983.

### E. AIR QUALITY

#### MEASURES PROPOSED AS PART OF THE PROJECT

- Unpaved demolition and construction areas would be wetted at least twice a day with complete coverage during excavation to reduce dust emissions. This would reduce particulate emissions (dust) by about 50%.
- The general contractor would maintain and operate construction equipment in such a way as to minimize exhaust emissions. During construction, trucks in loading or unloading queues would be kept with their engines off when not in use to reduce vehicle emissions, except for trucks delivering concrete.

Mitigation measures stated in Section D. which encourage use of transit, carpools, vanpools or otherwise reduce vehicle miles travelled and improve circulation efficiency would also reduce the amounts of vehicular emissions generated by the project.

### F. NOISE

#### MEASURES PROPOSED AS PART OF THE PROJECT

- The residential units closest to Harney Way would be designed so that bedrooms do not front Harney Way. This measure would reduce the impact of noise from nighttime traffic resulting from Candlestick Park Stadium events.
- About 80% of the proposed 500 housing units would be located on the far eastern portion of the project area (Area 3), the area farthest from US 101. This would reduce the potential noise impacts of US 101 on the majority of project residents. The remaining 100 units in Area 2, located in the office/residential/parking structure, near US 101, would be elevated. Title 24 noise insulation measures would be required for all units in Area 2.

## VI. Mitigation Measures

### APPLICABLE PROPOSED MEASURES IDENTIFIED IN THE 1976 FINAL EIR

- Noise sources (rooftop or exterior air conditioning units, fans, etc.) within the proposed project would be screened or enclosed to minimize effects on nearby project area sidewalks, the Town Center plaza, and the Candlestick Point State Recreation Area.
- Open-space areas on the developed portion of the site (plazas and terraces) would be screened from traffic-related noise by dense building materials, berms, or other physical or landscape features capable of deflecting or absorbing sound. Landscaping would provide a maximum noise reduction of about five dBA.

## G. ENERGY

### MEASURES PROPOSED AS PART OF THE PROJECT

The following are general measures which would be incorporated into the final design of each proposed structure.

- All hot water heaters would be located as close as possible to the point(s) of use and all hot water pipes would be insulated.
- Interior and exterior lighting of offices would be primarily by energy efficient light sources such as fluorescent fixtures.
- Multiple trash bins would be installed in place of single units to encourage source separation of recyclable material.
- Photocell-activated switches would be used to activate all exterior lighting and all parking area lighting.

### MEASURES NOT INCLUDED AS PART OF THE PROJECT

- As a condition of building permit approval, the City Planning Commission could require the sponsor to prepare a detailed report for the Department of City Planning (Energy Group). If required, the project sponsor would prepare such a report. The

report would demonstrate energy conservation measures that would be included in the project and those measures which, due to design constraints or economic considerations, would not be included. See Appendix F, p. 225 for conservation features that could be considered in this report.

### H. GEOLOGY, SEISMICITY AND HYDROLOGY

#### MEASURES PROPOSED AS PART OF THE PROJECT

- To reduce the potential for damage from loosely embedded or exposed boulders, such boulders would be removed from the face of the final excavated slope. Differential weathering could produce potentially unstable boulders that could roll downslope due to undercutting or earthquake groundshaking.
- Existing fill and any soft, weak or expansive materials encountered within the building sites would be replaced with properly compacted fill.
- In areas to be filled, the surface would be cleared of trash, organic material and debris. The upper two to three inches of soil would be stripped to remove grass and other vegetation. This material would be stockpiled for landscaping uses later.
- If seepage is encountered in fill areas, subdrains would be installed to aid in draining the areas to reduce long-term maintenance problems, as was done for OB 3./1/
- Horizontal drain pipes (hydraugers) or gravel subsurface drains would be installed to divert groundwater from the surface of weak or sheared rocks, especially shale.
- During project development, any future slumps or slides would be immediately cleaned up to prevent debris from blocking surface drainage and directing runoff off benches towards the slope, resulting in erosion.
- To reduce surface erosion and improve stability, the cut slopes would be planted as soon as possible after excavation. Native California plants, requiring a minimal amount of water, would be used to reduce the potential for erosion and saturation of



the hillside slopes (see Appendix G, Ecology, p. 226 for a list of plants that would adapt well to the hillside). Hillside planting and hydroseeding of areas with adequate soil would be performed soon after excavation and prior to the November-April rainy season. The slope would be surveyed prior to seeding to determine which areas have adequate soil.

- To reduce erosion, all benches (or the toe of each slope) would be sloped to drain away from the slope face and concrete, asphalt- or gunite-lined V-ditches would be provided along the uphill side of the benches to collect and divert surface water away from the slopes. Runoff from individual benches would be directed into culverts that discharge into storm drains or suitable discharge points. Landscaping could prevent views of the ditches.

### APPLICABLE PROPOSED MEASURES IDENTIFIED IN THE 1976 FINAL EIR

- The final design of the grading scheme would include a gradual cut. All slopes would be excavated no steeper than 2:1 (horizontal:vertical), with benches of about 30 ft. apart vertically to improve overall stability, permit equipment access for maintenance and facilitate landscaping. The average slope of the master plan amendment would be 2:1 as specified in Resolution No. 7547.
- Planned grading would remove most of the small slumps; all debris would be removed from existing slides and slumps; and surface draining and seepages would be redirected around the slides.
- The upper portion of the slide that encroaches on Bayview Park would be graded back to a flatter configuration to improve the stability of the area.
- A buffer zone would be maintained between the toes of the steeper slopes and building sites to increase slope stability and protect buildings from possible damage by slides.
- The project sponsor and engineers would reach an agreement with the City for periodic maintenance inspection of the mutual boundaries, installation of an interceptor drainage system adjacent to Bayview Park, and continuous maintenance

## VI. Mitigation Measures

of the upper slopes of the project adjoining the park. The cost to the City would be determined by this negotiation.

- Detailed foundation investigations and engineering analysis would be conducted for each site to insure use of proper techniques to minimize the adverse effects of consolidation of foundation material such as uneven settling of buildings, and to provide resistance to seismic stress.

NOTE - Geology, Seismicity and Hydrology

/1/ Harding-Lawson Associates, 1981, Soil Investigation, Office Building 3, San Francisco Executive Park.

## I. ECOLOGY

### MEASURES INCLUDED AS PART OF THE PROJECT

- The sponsor would develop a landscaping program with the project architects. Where appropriate, developed and undeveloped portions of the site would be landscaped with native plants to ensure increased potential for plant survival (also required by Resolution No. 7547) to maximize the habitat value of this vegetation for native wildlife and to discourage expansion of populations of urban-adapted wildlife pests. The sponsor has planted the following native vegetation on the upper slopes of the project area: Monterey pine, ceanothus, pinon pine, and hollyleaf cherry.
- Group plantings of shrubs and trees would be located at intervals on the upper slopes, generally above the 120-ft. contour, to provide shelter for birds and small terrestrial wildlife. See Appendix G, p. 226 for a list of plants suitable for use in landscaping. Use of native species would also reduce the need for fertilizer, pesticides, and excessive watering, all of which could affect marine life exposed to site runoff.
- On portions of the site generally above the 120 ft. elevation, landscaping and grading would be developed so as to encourage surface ponding accessible to terrestrial wildlife; this would replace existing surface ponds that would be eliminated by project development.
- To mitigate the effects of poor soil fertility, difficult topography and poor irrigation on hillside planting, the following measures would be included in the project. These measures would be implemented mostly during Phases One - Four.

## VI. Mitigation Measures

- Poor soil fertility would be compensated for by planting species (primarily native California) that would adapt to project area soil conditions, providing an adequately sized planting pit, properly enriching existing soil, and applying fertilizers on a regular basis.
- Excavated slopes have resulted in difficult topography. Old exposed slopes, particularly those over 1:1 or greater, would be planted with cascading shrubs along the outside of the benches to cover the exposed slopes.
- The landscaping plan would consider the feasibility of including plants which provide habitat for the Mission blue, San Bruno elfin, and Callippe Silverspot butterflies, and would plant them if feasible. The landscaping plan would also consider the feasibility of planting rare and endangered plant species (coast rock cress and Diablo helianthella) that are extirpated from the project area, and would include them if feasible. The hillside hydroseeding which has occurred in the past has not received consistent irrigation (see IV.L, p.62). The landscaping plan would consider the feasibility and compatibility of installing an overhead irrigation system, which would apply fertilizer and water to the hillside on a regular basis. If installed, the irrigation system would be operated to minimize erosion.

### APPLICABLE PROPOSED MEASURES IDENTIFIED IN THE 1976 FINAL EIR

- All future phases in and around all structures, parking lots, entrances and roads, and cut and fill slopes would be planted with trees, shrubs, vines, groundcovers and grasses and would be watered with irrigation systems.
- Plantings of trees and shrubs would be added adjacent to existing highway plantings on the western boundary of the site.
- The plants for steep-sloped areas would be selected for drought-resistance to minimize demand for irrigation. Design and maintenance plans would be developed to insure as much as possible the survival of plants on the project site.



APPLICABLE MEASURES REQUIRED BY RESOLUTION NO. 7547

- Develop a landscaping plan for the site which shall include but not be limited to: complete coverage of visible, stepped hillside with trees, shrubs and ground cover; a regular schedule for maintaining all landscaped area; and legally binding bond or other security guarantee to cover the cost for maintenance of landscaping.

**J. EMPLOYMENT, HOUSING AND FISCAL FACTORS**

MEASURES PROPOSED AS PART OF THE PROJECT

- The sponsor has worked, and would continue to work, to improve local resident employment opportunities during construction and permanent operation of the project. To this end, the sponsor has met with contractors, vendors, and service/maintenance providers to the project to encourage their hiring of local residents. The sponsor would also hold discussions with project tenants to encourage them to hire local residents when feasible. Increased employment opportunities for local area residents would be an additional responsibility of Williams & Burrows' Equal Employment Opportunity (EEO) Officer (see following).
- To improve employment opportunities for minorities and women, the construction contractor, Williams & Burrows, has an Equal Employment Opportunity Officer (EEO Officer) who would administer the Affirmative Action Program. The contractor would work with construction unions to increase minority and female representation, and would solicit minority subcontractors. Furthermore Williams & Burrows is committed to employing local residents in all phases of construction and has agreed to a resident employment goal as part of its Affirmative Action Program. Williams & Burrows employed 39% local residents and 77% minorities during the construction of OB 2.
- The sponsor is proposing to develop 500 units of housing on-site. Construction of these units would partially mitigate total housing demand generated by the project, of between 1,022 and 1,174 units.

APPLICABLE MEASURES REQUIRED BY RESOLUTION NO. 7547

- An Affirmative Action Employment Plan should be developed which would include descriptions of programs to be initiated by the sponsor or lessees at the request of the sponsor which will promote employment opportunities for San Francisco residents, particularly those living in nearby neighborhoods.

MEASURES NOT INCLUDED IN THE PROJECT

- The project sponsor could provide between 522 and 674 additional housing units to meet estimated project housing demand (as estimated by the OHPP formula) not provided on-site. The sponsor has rejected this measure, as it believes that OHPP guidelines are not directly applicable for determining San Francisco housing demand created by the proposed project. Prior to implementation of OHPP in January 1982, approximately 839,000 sq. ft. of office space had been approved under the previous development plan; therefore the project sponsor believes that the OHPP should be applied only to the 311,000 sq. ft. (1,150,000 less 839,000 sq. ft.) of additional office space proposed in the project (beyond that already approved in the previous "Yerby" development plan). This would lead to an OHPP formula demand of 276 units. Because the survey of current employees at OB 1 and OB 2 indicates that employees who previously resided in San Francisco moved out of the City after their jobs relocated to the project site (see p. 128), the sponsor believes that the percentage of San Francisco residents employed in the office portion of the project would be less than the 40% used in the OHPP formula.

K. HAZARDS

MEASURES PROPOSED AS PART OF THE PROJECT

- An evacuation and emergency response plan would be developed by the project sponsor or building management staff, in consultation with the Mayor's Office of Emergency Services (OES), to insure coordination between the City's emergency planning activities and the project's plan and to provide for building occupants in the event of an emergency. The proposed emergency response plan of the project would be reviewed by the OES; those portions of the plan necessarily a part of building

design would be implemented by building management before the Department of Public Works issues final building permits.

### **L. CULTURAL**

#### MEASURES PROPOSED AS PART OF THE PROJECT

- Should evidence of significant cultural or historic artifacts be found at the site during project excavation, the Environmental Review Officer and the President of the Landmarks Preservation Advisory Board would be notified. The project sponsor would select an expert archaeologist to help the office of Environmental Review determine the significance of the find and whether feasible measures, including appropriate security measures, could be implemented to preserve or recover such artifacts. The Environmental Review Officer would then recommend specific mitigation measures, if necessary, and recommendations would be sent to the State Office of Historic Preservation. Excavation or construction which might damage the discovered cultural resources would be suspended for a maximum of four weeks to permit inspection, recommendation and retrieval, if appropriate.

### **M. UTILITIES AND PUBLIC SERVICES**

#### MEASURES PROPOSED AS PART OF THE PROJECT

- The project would provide internal security measures, such as security guards, well-lighted entries, alarm systems, and emergency communication systems, emergency power and water supply for office uses to minimize the need for police and fire services and to reduce hazards to building occupants during an earthquake or fire. See also the mitigation measure above concerning hazards.
- The project design would incorporate low-flow faucet and toilet fixtures to reduce water consumption.



**VII. SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE  
PROPOSED PROJECT IS IMPLEMENTED**

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This chapter identifies impacts that could not be eliminated or reduced to an insignificant level by mitigation measures included as part of the proposed project, or other mitigation measures that could be implemented, as described in Chapter VI, Mitigation Measures, pp. 145-162.

**CUMULATIVE TRANSPORTATION IMPACTS ON US 101**

If no change occurred to the travel modes, routes or working hours, project traffic, combined with on-site, local, and regional cumulative development, would degrade operations on US 101 southbound from Level of Service E to F and on US 101 northbound from B to F during the p.m. peak hour. The effect of these degraded Levels of Service would be to spread the peak-of-the-peak period from the current 15 minutes to a two-hour period.

**VIII. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY**

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The following chapter is required by the State EIR Guidelines for any project which would require a General Plan Amendment or rezoning (Sections 15126(e), (f)).

The project would preempt open space use of the developed portions of the site during the life of the project. The project would contribute to cumulative traffic generation that would either reduce the current Levels of Service on US 101 from E to F southbound and B to F northbound during the p.m. peak hour; or contribute incentive for long-term changes in travel modes and behavior in the San Francisco region. During the life of the project, the project would consume about 134.4 billion Btu of natural gas and 274.9 billion Btu of electricity per year.

Development of the site would limit the range of alternate uses of the site, including open space use and extension of continuous open space from Bayview Hill to the Candlestick Point State Recreation Area. The project would not pose any particular risk to public health and safety.

In exchange for these long-term adverse effects, the project, during its lifetime, would create employment opportunities for about 5,000 persons, add approximately 500 housing units to the City's housing stock, and increase revenues to the City from property taxes.

The sponsor believes that the project is justified now, rather than reserving an option for future alternatives to be developed at the site, because there is a current market for office and retail space outside of the downtown core and nearer to the airport and freeway. The sponsor also wants to proceed with developing the site under the design of the proposed Development Plan Amendment, instead of continuing to build under the Yerby Plan.

**IX. ANY SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD  
BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED**

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The most irreversible impact of the project would be the consumption of energy. Construction activities would consume about 3.1 billion Btu of electricity, 50,000 gallons of diesel fuel and 56,400 gallons of gasoline. The project (operation plus amortized construction) would consume about 134.4 billion Btu of natural gas and 274.9 billion Btu of electricity per year. About 850,000 cubic yards of material would be excavated, permanently altering the existing topography of Bayview Hill. Proposed roadway improvements could commit future generations to expansion of commercial development in the project vicinity, particularly to the south in Brisbane. For the life of the project, there would be a loss of 23 acres of undeveloped land available for colonization and growth of native plants. Once development of the project area has occurred, the option of leaving 23 acres of the project area as open space would be lost for the life of the project. Subsequent purchase of the site for open space after development occurs would be much more costly than if purchased prior to further development on the site. The appearance of the site would be altered for the life of the project.



## **X. ALTERNATIVES TO THE PROPOSED PROJECT**

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In addition to the "no-project" alternative required by CEQA, three other alternatives have been identified by the Office of Environmental Review as those which would reduce or eliminate one or more impacts of the project. The discussion describes the basic features of each alternative, compares its effects to those of the proposed project, and presents reasons for its rejection by the project sponsor. A comparison of the total floor area and uses proposed in each alternative is given in Table 17, p. 167. As with the analysis of the proposed project, each alternative treats OB 1 and OB 2 as present setting conditions and OB 3, OB 4 and the Alana Way restaurant as part of cumulative on-site development effects; impacts associated with OB 3, OB 4 and the Alana Way restaurant are not included in the discussion below, as those impacts would remain the same for each alternative and have already been analyzed in Section V, Environmental Impacts, pp. 68 to 144.

### **A. NO PROJECT: NO DEVELOPMENT OF THE SITE BEYOND OB 1 - OB 4**

In this alternative, the project area would not be developed and no development of the Executive Park site would occur beyond OB 3, OB 4, and the Alana Way restaurant, all of which have been approved under the Yerby Development Plan. (The "no-project" alternative could also involve full development of the approved 1981 Master Plan; see discussion of Alternative B below). Existing uses on the site would be similar to those discussed in III. A. Land Use and Zoning, pp. 30-37, except that an additional 284,000 sq. ft. of office space (OB 3 and OB 4) and 5,000-sq.-ft. of restaurant space would be developed on-site. Increased effects on transportation, air quality, noise, energy, employment, and housing demand, attributable to OB 3 and OB 4, are discussed in these respective impact sections. Total on-site development in Alternative A would be about 499,000 gross sq. ft. of floor area, including OB 1 and OB 2 (210,000 sq. ft.). On the assumption that proposed local cumulative development in Brisbane would be constructed, the effect on intersection capacities would be similar to those shown in the second column of Table 6A (Existing + On-site and Local Cumulative Without Improvements) on p. 89.

TABLE 17: COMPARATIVE DESCRIPTION SUMMARY OF ALTERNATIVES

	Proposed Project	Alternative A (No development of the site beyond OB 1 - OB 4)	Alternative B (Full Buildout of 1976 Master Plan as amended through 1981)	Alternative C (Mixed-use/ Medium-Density)	Alternative D (Maximum Housing Development)
Office (Sq. ft.)	1,150,000	0	345,000	750,000	0
Retail/Restaurant (Sq. ft.)	45,000	0	28,000	5,000	5,000
Hotel/Convention (Sq. ft.) (Rooms)	234,000 350	0	239,000 420	0	0
Residential (Sq. ft.) (Units)	425,000 500	0	0	96,000 120	1,044,000 1,305
Parking (Spaces)	3,900	0	2,475	1,960	1,960
Total Proposed Gross Floor Area (New construction)*	1,854,000	0	612,000	851,000	1,049,000
Existing and Approved	<u>499,000</u>	<u>499,000</u>	<u>499,000</u>	<u>499,000</u>	<u>499,000</u>
Grand Total Sq. Ft. of Revised Executive Park Master Plan (Full Buildout)	2,353,000	499,000	1,111,000	1,350,000	1,548,000
Height / Bulk District Reclassification	Yes	No	No	No	Yes

\*Totals do not include OB 1 - OB 4 and the Alana Way Restaurant.

SOURCE: Environmental Science Associates

The no-project alternative would permit two options: 1) the site remains undeveloped; or 2) the site would be acquired for public open space.

### 1. SITE REMAINS UNDEVELOPED

In this variant of Alternative A, the 50-acre project area would not be developed. It would be necessary for the City to purchase the site in order to preserve the future option of developing the site into open space.

If the project area remained undeveloped, the environmental characteristics of this alternative would be substantially as described in the environmental setting section of this report (see Section IV, pp. 30-67 for a discussion of existing conditions). Geology, transportation, air-quality and energy impacts associated with construction of the project would not occur. Topographic alteration of the project area would be minor. The slopes of Bayview Hill above the 50-ft. elevation would not be disturbed. Transportation, transit, air quality and noise conditions described (in Section V of this report), as 1995 base conditions with local and regional cumulative development (including OB 3, OB 4 and the Alana Way restaurant), but without the project, would exist on streets in the project vicinity and on US 101 in 1995. With full occupancy, up to 2,000 people would be employed in OB 1 - OB 4; no increases in housing demand and support retail services would occur beyond the existing and approved uses at the site.

### 2. PUBLIC OPEN-SPACE USE OF SITE

If the City acquired the undeveloped project area, it could be developed into public open space and included in an expanded Bayview Park. The City has no plan at the present time to acquire the project area if it were available./1/ Open-space use of the site would be consistent with the recommended use of the site in the San Francisco Bay Plan of the San Francisco Bay Conservation and Development Commission (BCDC). An open-space use would not conform to the all-commercial-use designation of the site in the San Francisco Comprehensive Plan - South Bayshore Plan. If the City were to landscape the site for erosion and sediment control, the visual quality of the existing site would be enhanced. Otherwise, hillside erosion and minor slides would continue to occur. Depending on the extent and type of landscaping, open-space use of the site would maintain or improve the existing habitat value of the site for wildlife.



## STATUS OF ALTERNATIVE A

The sponsor has rejected this alternative because it would preclude its right to fully develop the Yerby Master Plan, which has already been approved by the City Planning Commission. The sponsor believes that the proposed project would provide a better scale and mix of uses at the site than the Yerby Plan, particularly the inclusion of housing.

### NOTE - Alternative A

/1/ Timothy Lillyquist, Assistant to the General Manager, San Francisco Recreation and Park Department, telephone conversation, January 20, 1983.

## **B. CONTINUED BUILDOUT OF THE YERBY DEVELOPMENT PLAN**

This alternative would continue construction of the Yerby Development Plan, including the two design changes approved in 1980 and 1981. As the City Planning Commission has already approved this Development Plan by Resolution Nos. 7547 and 9089, Alternative B would not require further environmental evaluation or project approval; development beyond OB 3 and OB 4 would still require site permit approvals. (See Appendix A, p. 193 for a chronology of events leading to approval of the Yerby Development Plan.)

Alternative B would consist of 345,000 sq. ft. of office space (not including OB 1 - OB 4), 28,000 sq. ft. of retail/restaurant space (not including the 5,000-sq.-ft. restaurant on Alana Way), 239,000 sq. ft. of hotel/convention (420 rooms), a total of 612,000 sq. ft. of construction. No residential uses were proposed in the Yerby Development Plan (see Figure 18, p. 170 for a site plan of Alternative B.). Full buildout of the 1981 Development Plan would total 1.1 million sq. ft. (including OB 1 - OB 4 and the restaurant on Alana Way). OB 1 - OB 4 and the restaurant are considered as setting conditions or as approved cumulative on-site development and are not analyzed further in this alternative. A comparison of full buildout of the Yerby Development Plan to full buildout of the revised Development Plan (with amendment) is given in Appendix A, Table A-2, p. 195.

Alternative B would develop about 40% less total floor area than is proposed for the project. Alternative B would include more hotel rooms and slightly more hotel space, and would include less office and retail/restaurant space than would the project. No housing

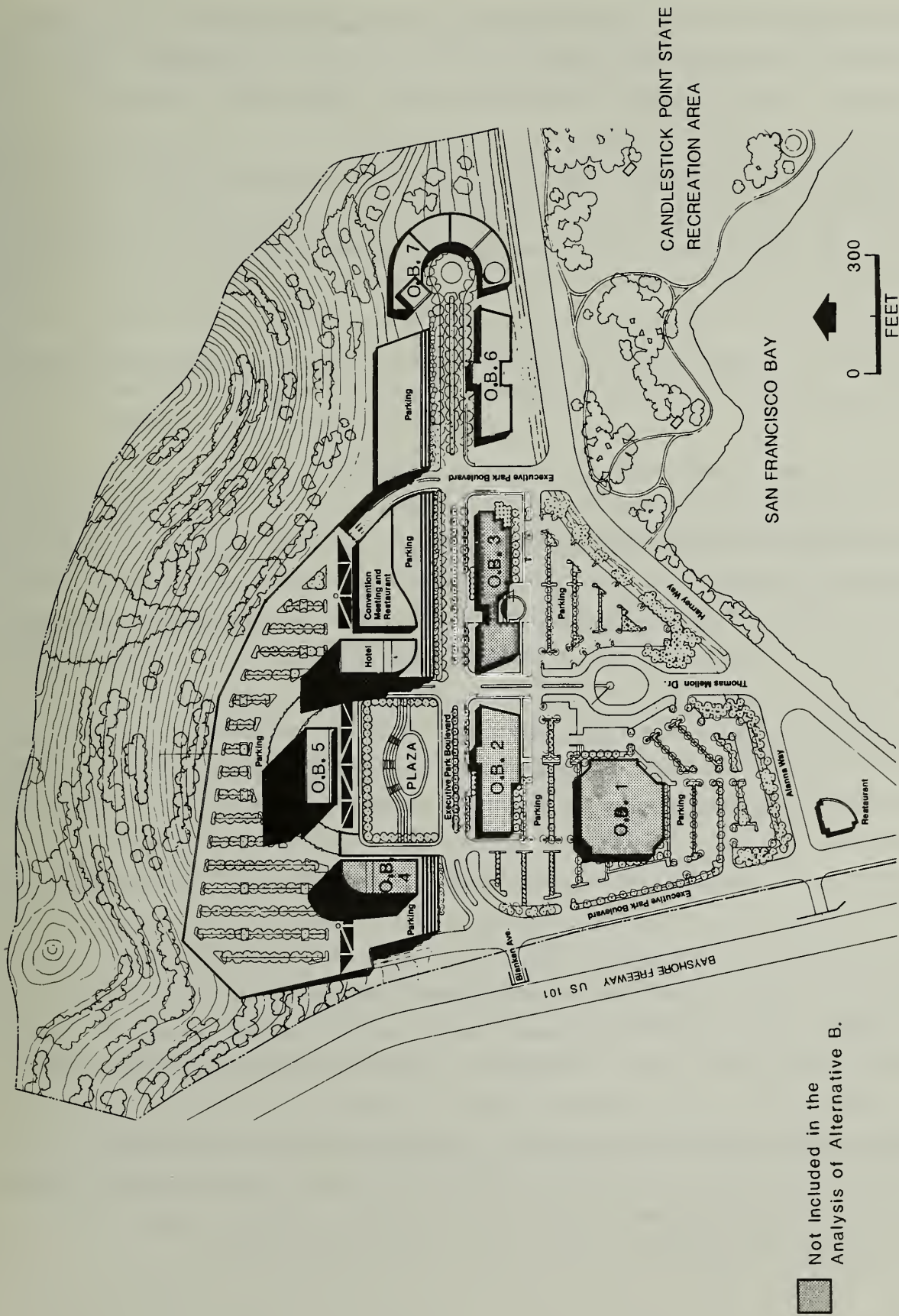


FIGURE 18: ALTERNATIVE B - YERBY MASTER PLAN



would be provided in Alternative B. This alternative would conform to the commercial use of the site specified in the South Bayshore Plan of the Comprehensive Plan. The Comprehensive Plan designation of the site was changed from all-residential to all-commercial in 1976, specifically to address the Yerby Development Plan. Alternative B would not require a height and bulk district reclassification of the site for uses outside of the 230-G district. The present 230-G district was changed from 40-X in response to the three 230-ft.-high towers proposed in the original Yerby Development Plan.

Land uses in Alternative B would differ from those of the project because no residences would be developed.

As with the project, development in Alternative B would be concentrated on the lower slopes of Bayview Hill; the upper slopes of Bayview Hill would be topographically unaltered and landscaped. In this alternative OB 4, OB 5 and the hotel would be located in the northwestern portion of the site, along US 101, and could be built up to the 230-G height district; remaining structures would be 40 ft. in height or lower. Although the precise heights of buildings in the proposed project have not yet been determined, structures located adjacent to US 101 would be stepped in height, ranging from a maximum height of 65 ft., near US/101, to about 165 ft. at the center of the site. The heights of buildings in the proposed project would range from 40 to a maximum of 165 ft., about 65 ft. lower than the tallest building proposed in Alternative B.

Wind conditions associated with this alternative would be similar to those of the proposed project. For each of three wind directions (westerly, northwesterly, and southwesterly), conditions in Little Hollywood would remain unaffected with this alternative as they would with the project. Thomas Mellon Dr. would experience approximately the same wind flow in both direction and magnitude for westerly and southwesterly winds as with the project; northwesterly wind flows would be increased slightly. Average wind speeds along Executive Park Blvd. would be approximately the same as described for the project, although there would be increased upwardly swirling (vortex) of the northwesterly winds. The undeveloped Candlestick Point State Recreational Area would experience a slight difference in northwesterly and southwesterly wind flow or speeds. There would be a 10 - 20% reduction in northwesterly wind speeds in the Recreation Area.



## X. Alternatives

Westerly and northwesterly wind conditions at the Candlestick Park Stadium would remain the same in Alternative B as for the project, whereas southwesterly wind speeds would increase slightly over project winds with elevated levels of turbulence.

Under this alternative the mix of uses would generate employment opportunities for approximately 2,900 workers, about 2,100 fewer than with the project. Alternative B would generate about \$3.0 million in revenue to the City's General Fund, as compared to project net revenues of \$ 4.24 million. On the basis of 230,000 annual Muni trips, a deficit (cost) per ride minus fares per ride) to Muni of about \$34,000 would result with this alternative; this deficit would be offset by annual revenues of \$300,000 accruing to Muni. In comparison, the project would generate a deficit to Muni of \$163,800, which would be offset by annual revenues of \$424,100.

This alternative would result in a total of about 8,700 daily vehicle trip ends (vte) and 1,200 peak hour vte. Compared to the project this would be about 50% reduction in the number of daily vte and about a 55% reduction in peak-hour vte. Daily transit trips would be reduced by 80% and peak-hour transit trips would be reduced by 75%. More trips would originate off-site, as no housing would be included in Alternative B.

Alternative B would reduce air pollutant emissions by about 50% compared to the project. Roadside carbon monoxide concentrations would be reduced by up to 25% (depending on location). Noise impacts associated with this alternative would generally be similar to those of the project. Alternative B would consume 68% less natural gas and 82% less electricity than would the project.

Alternative B would require somewhat less slope cutting than the proposed project because the hotel and housing uses proposed for the project extend farther up the hillside than do the uses included in the Yerby Development Plan. Overall, grading and excavation would be about the same as for the project.

This alternative would have substantially the same impacts on wildlife and vegetation as described for the proposed project (see Section V, p. 119).

## STATUS OF ALTERNATIVE B

The sponsor believes that the proposed project would provide a better design and mix of uses than the previously approved Yerby Plan, Alternative B.

The proposed project would provide for a more balanced mix of uses at the site. The residential and hotel components of the project would encourage 24-hour activity. The design of the project would eliminate the previously approved 230-ft. high rise towers, and would provide for a better integration of the project into the form of Bayview Hill.

## C. MIXED-USE/MEDIUM-DENSITY DEVELOPMENT

This alternative would consist of the construction of 750,000 sq. ft. of office space, 5,000 sq. ft. of retail space and 96,000 sq. ft. of residential space (120 units), a total of 851,000 sq. ft. of new construction (exclusive of OB 1 - OB 4 and the Alana Way restaurant), with no development north of the 100 ft. elevation of Bayview Hill. For comparison, the project would develop about 1.85 million sq. ft. of floor area (see Table 17, p. 167). No hotel/meeting space would be included in this alternative. Office uses would be developed in three 190-ft.-high towers on the northwestern portion of the site; housing would be developed on the eastern portion of the site in structures 40 ft. high or less (see Figure 19, p. 174).

Alternative C would include land uses similar to those of the project. No height and bulk district reclassification would be required, as all structures outside of the 230-G district would be 40 ft. tall or less. As with the project, Alternative C would require an amendment to the South Bayshore Plan of the Comprehensive Plan to permit residential use on the site.

This alternative would have less visual impact on Areas 2 and 3 than would the project; no hilltop restaurant or funicular would be constructed in Area 2, and housing would be stepped up the hillside in Area 3. No topographic alteration of the site would be necessary above the existing 100 ft. elevation (San Francisco datum); however the three 190-ft.-high towers on the northwestern portion of the site would obstruct views of Bayview Hill below the 225 ft. elevation. Rectangular, high-rise office towers would be out of character with Bayview Hill, and with the 40-ft. high residential structures.





Alternative C could be designed with towers shorter than 190 ft., which would reduce the visual impacts of this alternative. To achieve the small amount of office floor area, development could be spread out in undeveloped areas below the 100 ft. elevation.

Alternative C was tested in the Wind Tunnel test for each of the major wind directions, (see p. 43 for a description of the testing procedures). Winds associated with this alternative would result in the following changes compared to those with the proposed project:

Winds in Little Hollywood would be similar to those that would occur with the proposed project. Average summer afternoon winds on the western portion of Bayview Hill would decrease by one to three miles per hour (mph) (from 14 to 16.5 mph to 13 to 14 mph) with west winds, and would remain about the same as with the project with northwest and southwest winds. On the eastern portion of Bayview Hill, north of the hotel and the housing complex in Area 3, winds would increase by about 40 to 50% under west and northwest wind conditions, and decrease by about five mph during southwest winds. At the intersection of Executive Park Blvd. and Thomas Mellon Dr., west and northwest winds would increase from 2.5 - 10 mph to 4.5 - 16 mph; southwest winds would decrease slightly at this intersection and be slightly higher at the hotel. Northwest winds on Alana Way and on Harney Way (near the Candlestick Point Recreation Area) would increase about two to three mph (from 6 - 7.5 to 8.5 - 10.5 mph), while west and southwest winds would change little. West and southwest winds would be substantially reduced at the eastern end of Executive Park Blvd. (in Area 3) while northwest winds would increase slightly. Candlestick Park Stadium would be slightly less windy when winds blew out of the southwest, and winds there would be similar to those of the project with west winds.

Alternative C would generate about 3,040 employment opportunities. On the basis of net difference between office space approved in the 1981 Development Plan and office space proposed in Alternative C, this alternative would create a demand for 396 units. About 120 residential units would be provided on-site. The remainder of the housing requirement (255 units) could be met by off-site housing development or through contributions to the City's Mortgage Revenue Bond Program. This alternative would generate about \$2.6 million in revenue to the General Fund, 63% less than would the project. On the basis of 252,000 Muni trips annually, a deficit of about \$97,000 would accrue to

Muni with this alternative, 69% less the deficit generated by the project. As with the project, this deficit would be offset by annual revenues accruing to Muni (\$260,000 for Alternative C). If this alternative were developed with a different choice of uses than defined above, it would have different effects in this area.

Alternative C would generate about 9,500 daily vte and 1,850 peak-hour vte for a total reduction of 43% and 32%, respectively, when compared to the project. Daily transit use would be 41% less and peak-hour transit use 33% less than with the project. With this alternative there would be about a 40% reduction of air pollutant emissions and a decrease of up to 20% (depending on location) in roadside CO concentrations. Energy consumption associated with Alternative C would result in a 52% reduction in the consumption of natural gas and a 49% reduction in the consumption of electricity when compared to that of the project.

Alternative C would require less slope cutting, excavation, and grading than the proposed project. This reduction in cut would be most noticeable in the upper central portion of the site which is above 100 ft. in elevation (see Figure 17, Section BB, p. 116).

This alternative would remove less wildlife habitat on the site than would the project. The habitat that would be eliminated consists of exposed soil and ruderal vegetation that has little habitat value, but some small wildlife would be eliminated. As with the project, this alternative would introduce residential uses to the site; increased use of open space on the site and north of the site by residents could degrade the wildlife value of these areas.

### STATUS OF ALTERNATIVE C

The sponsor would not develop Alternative C for the same reasons stated for Alternative B. Specifically, the sponsor believes that the proposed office and housing uses in Alternative C would not provide an optimum mix of uses, create a destination image for the site, nor encourage 24-hour activity at the site. The sponsor believes also that the separation of uses on the eastern and western portions of the site and the dissimilar heights of the office and housing structures would not allow an integrated design; and that the 750,000 sq. ft. of office space would not be sufficient to support the 120 housing units.

**D. MAXIMUM HOUSING DEVELOPMENT**

This alternative would develop the entire project site into housing with the exception of OB 1 - OB 4 and the approved restaurant on Alana Way). Alternative D would construct about 1,300 residential units and 5,000 sq. ft. of retail space, a total of 1.05 million sq. ft. of floor area (see Figure 20, p. 178). For comparison, the project would develop 1.85 million gross sq. ft. of office, residential, hotel and retail space, including 500 dwelling units. The 1,300 units proposed in Alternative D would be about 1,400 units fewer than the maximum permitted for the project area in the C-2 zoning district.

In this alternative a less-varied mix of uses would be developed than in the proposed project. Alternative D would not conform to the commercial-use designation of the site in the amended South Bayshore Plan; the original South Bayshore Plan had recommended that about 700 market-rate units be developed at the site, 600 units fewer than would be developed in this alternative.

In Alternative D, three 230-ft.-high residential towers would be developed on the northwestern portion of the site. These towers would be visually prominent along US 101 and from the Little Hollywood area, similar to those included in the approved Yerby Plan. Housing on the eastern portion of the site would range from 40- to about 120-ft. high. As with the project, a height and bulk district reclassification would be required for the 120 ft. tall housing structures that would be located outside of the 230-G district.

The scale of Alternative D would be more intense than that of the project, because of the development of three 230-ft.-high towers on the northwestern portion of the site. Area 2 would be left as open space, although some grading would occur at the foot of Bayview Hill in the west central portion of the site to allow construction of the parking lot behind OB 4. Less visual alteration of the upper slope of Bayview Hill would occur than with the proposed project because neither the hilltop restaurant nor the funicular would be constructed in Alternative D. Area 3 would undergo visual alteration approximately similar to that of the proposed project, including cutting back of the foot of Bayview Hill.

With this alternative there would be approximately the same wind flow in both direction and magnitude in the Little Hollywood area as with the project. Wind conditions along Thomas Mellon Dr. would also remain the same except that northwesterly winds would be higher than with the project.



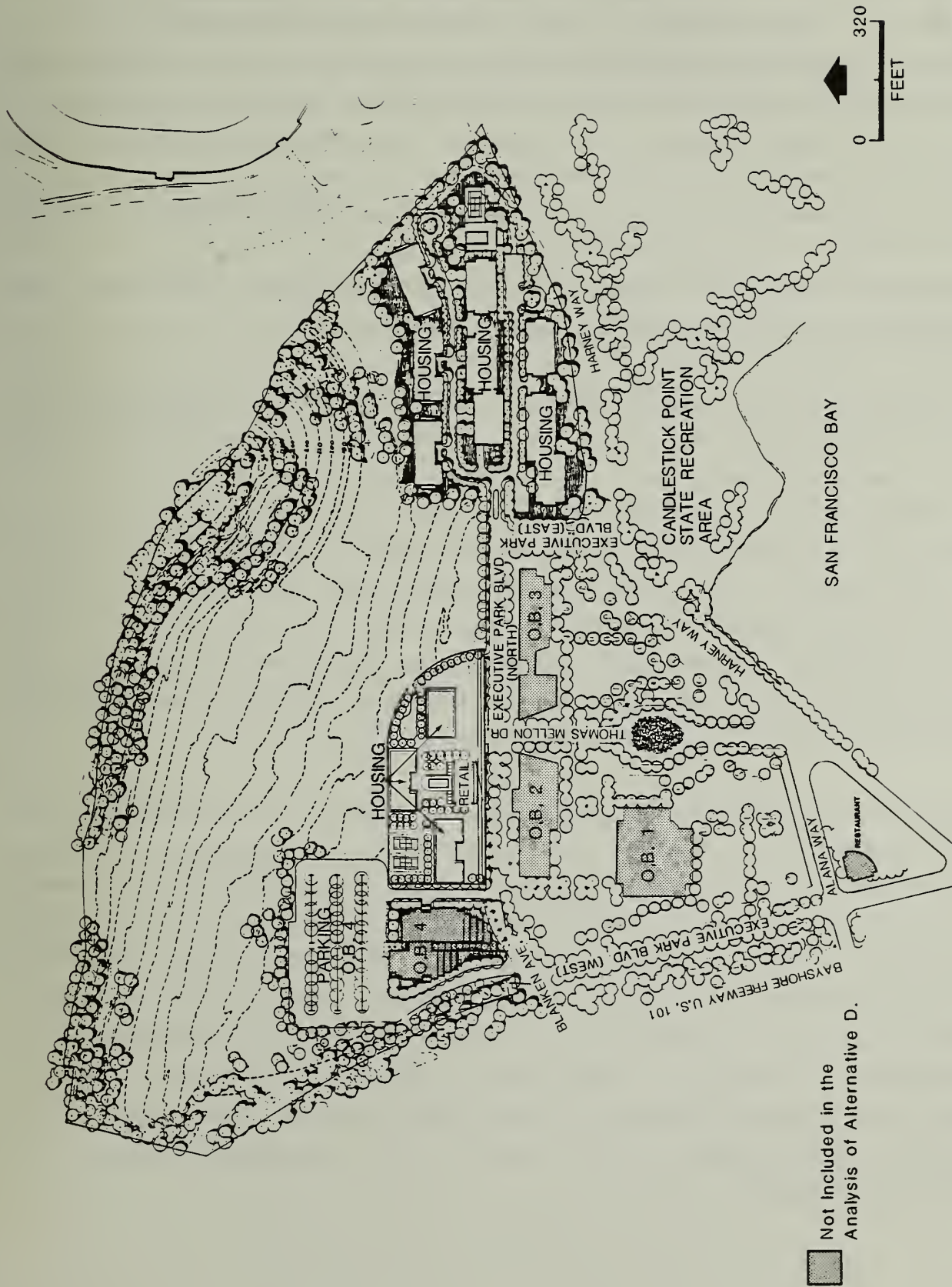


FIGURE 20: ALTERNATIVE D - MAXIMUM HOUSING DEVELOPMENT

Executive Park Blvd. would experience greater winds with this alternative, resulting in occurrence of high wind speeds at the pedestrian level. With this alternative, the Candlestick Point State Recreational Area would experience a 15-25% reduction in northwesterly wind speeds when compared to the project. The area on top of Bayview Hill, near the hillside restaurant, would experience slightly higher wind speeds with this alternative for westerly and southwesterly winds than with the project and the same wind speeds for northwesterly winds as with the project. There would be essentially the same wind environment in and around Candlestick Park Stadium with Alternative D for the northwesterly winds, and a slight increase, over the project, for westerly and southwesterly winds, with increased turbulence at ground level.

The 5,000 sq. ft. of retail space would provide about 15 jobs; a likely tenant would be a 24-hour convenience store to serve the 1,300 residential units. If the distribution of units were the same as in the project, this alternative would provide 325 studios, and 655 one-bedroom and 320 two-bedroom units. On the assumption of one person per studio, 1.5 persons per one-bedroom and 2.5 persons per two-bedroom, approximately 2,350 persons would live at the site. This alternative would generate about \$1.5 million in revenue to the City's General Fund, about one-third as much revenue as would be generated by the project. The annual Muni operating deficit attributable to this alternative would be about \$274,200, 40% more than the project's deficit. After accounting for revenues (\$150,000), Alternative D would result in a net deficit of \$124,200 to Muni.

In this alternative, residents would generate about 4,930 daily vte and 500 peak-hour vte, a total reduction of 70% daily vte and 82% peak-hour vte in comparison to the project. Daily transit trips would increase by about 68% and peak-hour transit trips would increase by about 9% over the project. There would be about a 70% reduction in air pollutant emissions and roadside CO emissions would decline by up to 35% (depending on location) as compared to those of the project. Peak-hour noise levels would increase by one dBA on Harney Way, Blanken Ave., Beatty Ave, and Alana Way. A one dBA increase would be imperceptible to the human ear. There would be an introduction of a greater number of sensitive noise receptors (residences) on the site. There would be a 45% reduction in the consumption of natural gas and a 61% reduction in the consumption of electricity as compared to the project.

Alternative D would require less cutting, excavation and grading than the proposed project. This alternative would develop substantially the same portions of the site as would the project. However, this alternative would have a greater impact on vegetation and wildlife than the project, because of the more-intense use of open space areas by the project residents and their pets.

### STATUS OF ALTERNATIVE D

The sponsor would not develop Alternative D. The sponsor believes that without a complementary mix of office/commercial uses, an all-housing development could not be marketed at the site, nor would it encourage 24-hour activity at the site. The three 230-ft.-high towers would obscure views of the upper slopes of Bayview Hill and would not retain Bayview Hill as a prominent feature.



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Planning Department  
44 Visitacion Avenue  
Brisbane, CA 94005  
Attention: Mr. Robert Ironside,  
Director

#### ABUTTING PROPERTY OWNERS

Macor, Inc.  
1280 Columbus Avenue  
San Francisco CA, 94133

Guido & Rena Giossa  
227 Concord Avenue  
San Francisco, CA 94112

Conrado & Myrna Bulos  
229 Hester Avenue  
San Francisco, CA 94134

Hilliard & Joan Terry  
223 Hester Avenue  
San Francisco, CA 94134

Thomas and Olive Fox  
55 Merced Avenue  
San Francisco, CA 94127

Danilo & Alicia Mopas  
60 Gillette Avenue  
San Francisco, CA 94134

Dorathy Cicero  
290 Topaz  
Redwood City, CA 94062

Rosemary Curry  
Archie & Bernetta Morish  
68 Gillette Avenue  
San Francisco, CA 94134

Bill Lee  
72 Gillette Avenue  
San Francisco, CA 94134

Thomas & Felta Bartholomew  
78 Gillette Avenue  
San Francisco, CA 94134

Lung & Yan Siu  
1117 Stockton Avenue  
San Francisco, CA 94133

Pablo & Maria Eugenio  
Edna & Virginia Eugenio  
119 Nueva Avenue  
San Francisco, CA 94133

Bob & Barbara Johnson  
115 Nueva Avenue  
San Francisco, CA 94134

Orlance Lee & Sue Chan  
133 Nueva Avenue  
San Francisco, Ca 94134

Mila Delrosario & Richard Yee  
Mila & Feliciano Agas  
123 Nueva Avenue  
San Francisco, CA 94134

John & Speranza Schembri  
101 Nueva Avenue  
San Francisco, CA 94134

Samuel & Sealeatha Brown  
44 Gillette Avenue  
San Francisco, CA 94134



## XII. Distribution List

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San Francisco, CA 94134

Patricio & Angelita Gamboa  
52 Gillette Avenue  
San Francisco, CA 94134

Virginia & Lolita Santos  
630 Blanken Avenue  
San Francisco, CA 94134

Andres & Catalina Aspiras  
45 Nibbi Court  
San Francisco, CA 94134

Ben Velez Jr. & Effie Beles  
50 Nibbi Court  
San Francisco, CA 94112

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AIA  
San Francisco Chapter  
790 Market Street  
San Francisco, CA 94102

All Hallows Community  
1387 Revere Ave.  
San Francisco, CA 94124  
Attention: Joseph Laudry

Arthur H. Coleman Medical Center  
6301 Third St.  
San Francisco, CA 94124  
Attention: Dr. Arthur Coleman

All People's Coalition  
168 Leland Avenue  
San Francisco, CA 94134

Bay Area Council, Inc.  
348 World Trade Center  
San Francisco, CA 94111

Bayview Baptist Ministers Fellowship  
Metropolitan Baptist Church  
1682 Newcomb Ave.  
San Francisco, CA 94124  
Attention: Rev. N. B. Mills,  
President

Bayview Merchants Association  
5100 Third Street  
San Francisco, CA 94124  
Attention: Mr. Roy Borno,  
President

Bayview-Hunters Point  
Community Coord. Council  
5016 Third Street  
San Francisco, CA 94124  
Attention: Shirley Jones

Bayview-Hunters Point  
Multipurpose Senior Citizens Center  
1706 Yosemite Ave.  
San Francisco, CA 94124  
Attention: Mr. George Davis

Bayview-Hunters Point Community  
Development Corporation  
1715 Yosemite Avenue  
San Francisco, CA 94124

Bayview Hunters Point Foundation  
6025 Third Street  
San Francisco, CA 94124

Bayview-Hunters Point  
Joint Housing Committee  
100 Whitney Young Circle  
San Francisco, CA 94124

Bayview Hunters Point Neighborhood  
Facilities  
100 Whitney Young Circle  
San Francisco, CA 94124

Brown Bomber Gymnasium, Inc.  
P.O. Box 2474  
San Francisco, CA 94124  
Attention: Sylvester Brown

Business Development Inc.  
1485 Bayshore Blvd.  
San Francisco, CA 94124  
Attention: Calvin Hayes

David Capron  
Lincoln Property Company  
220 Sansome Street  
San Francisco, CA 94104

Joseph Coriz  
2853 22nd Street  
San Francisco, CA 94110

Hunt Collins  
c/o Home Savings  
1730 South El Camino Real  
San Mateo, CA 94402

Jack Creighton  
58 Leland Avenue  
San Francisco, CA 94134

Community Defenders  
Bayview-Hunters Point Foundation  
6025 Third St.  
San Francisco, CA 94124  
Attention: Ernest Mitchell

Ecumenical Ministerial Alliance  
Grace Baptist Church  
800 Innes Ave.  
San Francisco, CA 94124  
Attention: Rev. John Lane

John Elberling  
177 Jesse Street  
San Francisco, CA 94105

Environmental Impact Planning Corp.  
319 Eleventh Street  
San Francisco, CA. 94103

Farella, Braun and Martel  
235 Montgomery Street  
San Francisco, CA 94104  
Attention: Mr. Gene Bates

Welton Flynn  
76 Venus  
San Francisco, CA 94124

Wayland Fuller  
5009 Third St.  
San Francisco, Ca 94102

Friends of Candlestick Point State Park  
P.O. Box 24245  
San Francisco, CA 94124  
Attention: Claude Everhardt

Friends of the Earth  
1045 Sansome St.  
San Francisco, CA 94111  
Attention: Ms. Connie Parrish

Ms. Ethel Garlington  
#3 Maddux Ave.  
San Francisco, CA 94124

Gray Panthers  
1045 Sansome Street  
San Francisco, CA 94111  
Attention: W. Nunnally

Gruen, Gruen & Associates  
564 Howard Street  
San Francisco, CA 94105

Joyce B. Hall  
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San Francisco, CA 94134

Jackie Hameister  
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San Francisco, CA 94134

Ms. Sue Hestor  
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Espanola Jackson  
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David Jones  
241 Bartlett Street  
San Francisco, CA 94110

Goldie Judge  
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San Francisco, CA 94134

Ms. Shirley Jones  
5016 Third Street  
San Francisco, CA 94124

Ms. Mary Lou Lindsey  
1 Revel #1A  
San Francisco, CA 94124

Little Hollywood Improvement  
Association  
257 Tunnel Ave.  
San Francisco, CA 94134  
Attention: Mr. Hameister, Pres.

Chris Lavdiotis  
1919 28th Avenue  
San Francisco, CA 94116

League of Women Voters  
12 Geary Street, Rm 605  
San Francisco, CA 94108

Betty Corley-Moore  
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San Francisco, CA 94134

New Bayview Committee  
c/o Sup. Doris Ward  
Room 235, City Hall  
San Francisco, Ca 94102

Mr. Frank Norell  
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San Francisco, CA 94134

Ms. Deborah Norman  
42 Randolph Ave.  
So. San Francisco, CA 94080

Mr. Gerald Owyang  
1517 Reed Avenue, #2  
San Diego, CA 92109

Mrs. G. Bland Platt  
339 Walnut Street  
San Francisco, CA 94118

Charles Hall Page and Associates  
364 Bush Street  
San Francisco, CA 94104

Alex Pitcher  
61 Pomona St.  
San Francisco, CA 94124

San Francisco Beautiful  
41 Sutter Street  
San Francisco, CA 94104  
Attention: Mrs. H. Klussman,  
President

San Francisco Building and  
Construction Trades Council  
400 Alabama Street, Room 100  
San Francisco, CA 94110  
Attention: Mr. Stanley Smith

San Francisco Community College  
Skill Center  
1250 La Salle Ave.  
San Francisco, Ca 94124  
Attention: Thomas Henderson

San Francisco Chamber of  
Commerce  
465 California Street  
San Francisco, CA 94104  
Attention: Mr. Richard Morten

San Francisco Ecology Center  
13 Columbus Avenue  
San Francisco, CA 94111

San Francisco Executive Park  
Advisory Committee  
c/o Faye Cooper  
P.O. Box 24139  
San Francisco, CA 94124

San Francisco Junior Chamber of  
Commerce  
251 Kearny Street  
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San Francisco Labor Council  
3058 - 16th Street  
San Francisco, CA 94103  
Attention: Mr. Bernard Speckman

San Francisco Planning and Urban  
Research Association  
312 Sutter Street  
San Francisco, CA 94108

San Francisco Convention &  
Visitors Bureau  
1390 Market Street, Suite 260  
San Francisco, CA 94102  
Attention: G. Kirkland, Manager

San Francisco Forward  
690 Market Street  
San Francisco, CA 94104

San Francisco Tomorrow  
728 Montgomery Street  
San Francisco, CA 94111  
Attention: Suzanne Smith



San Franciscans for Reasonable  
Growth  
9 First Street  
San Francisco, CA 94105  
Attention: Mr. Carl Imperato  
Mr. David Jones

John Sanger & Associates  
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San Francisco, CA 94114

Sequoia Audubon Society  
P.O. Box 1131  
Burlingame, CA 94010

Shafter Ave. Community Club  
P.O. Box 24449  
San Francisco, CA 94124  
Attention: Mr. Harold Madison,  
President

Sierra Club  
530 Bush Street  
San Francisco, CA 94108  
Attention: Mr. John Holtzclaw

Henry Schindel  
91 Leland Avenue  
San Francisco, CA 94134

Senior Citizen Escort Program  
1060 Tennessee St.  
San Francisco, Ca 94124  
Attention: Rev. Eugene Lumpkin

Kent E. Soule  
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Jolen M. Sout  
259 Peninsula Avenue  
San Francisco, CA 94134

Skidmore, Owings & Merrill  
One Maritime Plaza  
San Francisco, CA. 94111  
Attention: Mr. Bob Towle

Sunset Scavenger Corp.  
Foot of Tunnel Ave. and Beatty Ave.  
San Francisco, CA 94134

Tenants & Owners Development Corp.  
177 Jessie Street  
San Francisco, CA 94105  
Attention: John Elberling

Transfer Station  
501 Tunnel Avenue  
San Francisco, CA 94134

Steven Weicker  
899 Pine St., #1610  
San Francisco, CA 94108

Ms. Elouise Westbrook  
152 Maddux Ave.  
San Francisco, CA 94124

Valley Baptist Church  
305 Raymond Ave.  
San Francisco, CA 94134  
Attention: Rev. Jim Pittman

Visitacion Valley Merchants  
Association  
48 Leland Avenue  
San Francisco, CA 94134  
Attention: Jack Creighton

Visitacion Valley Improvement  
Association  
91 Leland Ave.  
San Francisco, CA 94134  
Attention: Mr. Schindel,  
President

Young Community Developers  
1625 Carroll  
San Francisco, CA 94124  
Attention: Cleo Rand

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New Bayview  
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San Francisco, CA 94124

San Francisco Bay Guardian  
2700 19th Street  
San Francisco, CA 94110  
Attention: Mr. David Johnston

San Francisco Chronicle  
925 Mission Street  
San Francisco, CA 94103  
Attention: Mr. Marshall Kilduff  
Mr. Allen Temko

## XII. Distribution List

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Attention: Mr. Gerald Adams

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San Francisco, CA 94103  
Attention: Mr. Mike Mewhinney

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## XIII. APPENDICES

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APPENDIX A: CHRONOLOGY OF MAJOR CITY ACTIONS PERTAINING TO THE  
SAN FRANCISCO EXECUTIVE PARK

February 19, 1970: The San Francisco Planning Commission by Resolution No. 6486 adopted as an amendment to the City's Master Plan a document entitled "Development Plan Amendment for the South Bayshore District." This amendment was based upon the South Bayshore Study, which recommended that the San Francisco Executive Park Site be developed as "low-density residential" with up to 700 units of market-rate housing.

August 12, 1976: The San Francisco Planning Commission adopted Resolution Nos. 7542, 7543, and 7544. Respectively, these resolutions certified the Final Environmental Impact Report (EE75.198) for San Francisco Executive Park, adopted text changes to the South Bayshore Plan and changed the zoning classification at the San Francisco Executive Park site from R-1 and M-1 to C-2.

August 26, 1976: The San Francisco Planning Commission changed the height and bulk district from 40-X to 230-G for the northwestern portion of the San Francisco Executive Park Site by Resolution No. 7546. By Resolution No. 7547, the Commission requested that the Yerby Corporation prepare a Development Plan for the San Francisco Executive Park Site, and declared a policy of discretionary review for any future changes to the Development Plan.

October 22, 1976: Former Mayor Moscone signed into law Ordinance Nos. 416-76 and 417-76, approving the zoning reclassification and height and bulk district amendments previously approved by the Planning Commission (Resolution Nos. 7543 and 7544).

October, 1978: The Yerby Corporation submitted a "Development Plan" to the Planning Commission for San Francisco Executive Park. Under its policy of discretionary review, the Commission adopted the 1978 Yerby Development Plan.

December, 1979: The Executive Park site was acquired by Campeau Corporation California.

December 15, 1980: The Planning Commission reviewed and adopted an amended Development Plan prepared by Robinson Mills & Williams Architects for Campeau Corporation California. This action approved building permit application No. 8010526 for Office Building 1 (OB 1).

August 6, 1981: The Planning Commission reviewed revisions to the Robinson Mills & Williams Development Plan, and by Resolution 9089 granted discretionary review approval to building permit application No. 810482 for Office Building 2 (OB 2).

June 29, 1982: An environmental evaluation application was submitted to the Office of Environmental Review, Department of City Planning by Campeau Corporation California for a Development Plan Amendment. The amendment proposed additional floor area and introduced a new use, housing.

September 24, 1982: An Initial Evaluation (Initial Study) of the proposed Development Plan Amendment was published by the Department of City Planning which determined that an Environmental Impact Report would be required.

TABLE A-1: COMPARISON OF DEVELOPMENT PROPOSALS FOR THE EXECUTIVE PARK SITE - TOTAL FLOOR AREA IN SQ. FT.

	1976 EIR	1978 Yerby Development Plan	1980 and 1981 Amended* Development Plan	Proposed Development Amendment**	Net Increment of New Con- struction Over Completed or Approved Floor Area Under the 1981 Develop- ment Plan	Total Floor Area of Full Buildout Development Plan***	Net Increment of Total Floor Area Between the Revised Development Plan and the Approved 1981 Development Plan (% Increase)
Office	863,000	740,000	839,000	1,150,000	+ 311,000	1,644,000	+805,000 (+96%)
Hotel/ Convention (rooms)	174,000 (275)	340,000 (500)	239,000 (420)	234,000 (350)	- 5,000 (-70)	234,000 (350)	- 5,000 (-70) (-17%)
Retail/ Restaurant	75,400	33,000	33,000	45,000	+ 12,000	50,000	+17,000 (+52%)
Housing (units)	0	0	0	425,000 (500)	+ 425,000	425,000	425,000 (n/a)
TOTAL FLOOR AREA	1,112,000	1,113,000	1,111,000	1,854,000	743,000	2,353,000	1,242,000 (+112%)
Total Parking (spaces)	3,895	2,255	2,475	3,900	1,425	5,100	2,625 (+110%)

\* No change in square footage between the 1980 and 1981 plan; the amendment consisted of design changes.

\*\* Totals do not include the 499,000 gross sq. ft. of floor area contained in OB 1 - OB 4 and the Alana Way Restaurant.

\*\*\* Total development plan if the proposed amendment of 1,854,000 sq. ft. (exclusive of parking) is approved. Total includes OB 1 - OB 4 and the Alana Way Restaurant.

SOURCE: Department of City Planning and Environmental Science Associates.

TABLE A-2: COMPARISON OF FULL BUILDOUT OF CURRENT EXECUTIVE PARK DEVELOPMENT PLAN TO FULL BUILDOUT OF THE "YERBY" DEVELOPMENT PLAN (as amended in 1980 and 1981)\*

<u>Impact Category</u>	<u>Full Buildout of Current Executive Park Development Plan</u>	<u>Full Buildout of "Yerby" Development Plan</u>
Total Gross Floor Area**	2,353,000	1,111,000
Jobs	7,000	3,700
P.M. Peak Hour Trips Person (External)	4,520	2,740
Level of Service on US 101 With Local and Regional Cumulative (P.M. NB/SB)	B to F (N/B) E to F (S/B)	Same
Excavation (Total cu. yds.)	1.1 million	1.1 million (similar)
Carbon Monoxide (CO) Concentrations	No violations	No violations
Noise Levels	One - three dBA increase	Similar, but fewer sensitive receptors (housing) on site.
Energy (Billion Btu, at source)	536	265
Ecology	Landscaping Plan would include hydroseeding; hillside planting with predominantly California Native species; if feasible, replacement of rare and endangered species on site; and hillside trails.	Similar, but less thoroughly studied landscaping plan; no consideration of rare and endangered species; and no hillside trails proposed.
Wind Speeds	No effect, or decrease of winds on the hillside, Little Hollywood, Candlestick Park Stadium and Candlestick Point State Recreation Area; northwest winds would increase on the northwest portion of the site.	Similar except for slight increase over project winds in area of the Town Center; and slight decrease at the Candlestick Point State Recreation Area.

\* Full buildout of each plan includes OB 1 - OB 4 and the Alana Way restaurant.

\*\* See Table A-1, p. 194 for a breakdown of total gross floor area by use.

SOURCE: Environmental Science Associates, Inc.



APPENDIX B: FINAL INITIAL STUDY, September 29, 1982\*

---

\*Differences among data presented in the following Initial Study and the preceding EIR are attributable to more-precise or additional information that became available during the subsequent preparation of the EIR.

## APPENDIX B: INITIAL STUDY

INITIAL STUDY  
SAN FRANCISCO EXECUTIVE PARK  
82.197E

## I. INTRODUCTION

The Environmental Impact Report (EIR) for San Francisco Executive Park Master Plan was certified on August 12, 1976 (E75.198, City Planning Commission Resolution 7547). Two buildings have been constructed, a third has been approved and a fourth is in the planning stages as part of the original Master Plan proposal. The original proposal included 853,000 sq. ft. office area, 140,000 sq. ft. of convention/restaurant/retail area, a 118,000 sq. ft. hotel and 3,900 parking spaces, for a total commercial development of 1.1 million sq. ft (exclusive of parking area). Because of changes in design (including additional office square footage and the introduction of housing) and in setting conditions, the San Francisco Department of City Planning's (DCP) Office of Environmental Review (OER) has determined that a new environmental evaluation is required for the project.

## II. PROJECT DESCRIPTION

The proposed project consists of a mixed-use development including office, residential, retail, commercial (hotel and restaurant) and parking, on a 52-acre site in Assessor's Block 4991, Lot 82. The site is in a C-2 (Community Business) Use District and 230-G and 40-X Height and Bulk Districts. The site is located south of Bayview Hill and Park and east of U.S. 101 (see Figure 1, p. 198). Candlestick Park is east of the site, and the Bay, and an undeveloped State park (Candlestick Point State Recreation Area) are to the south. The Bayview Hunter's Point residential area is located north of the site beyond Bayview Hill (also known as Candlestick Hill). The Little Hollywood residential area is located west across U.S. 101 from the site. Southwest of the site, across U.S. 101, is the site of the proposed Resource Recovery Facility in Brisbane.

The project would contain the following uses:

---

TABLE 1: PROPOSED USES BY GROSS SQUARE FEET/UNITS

---

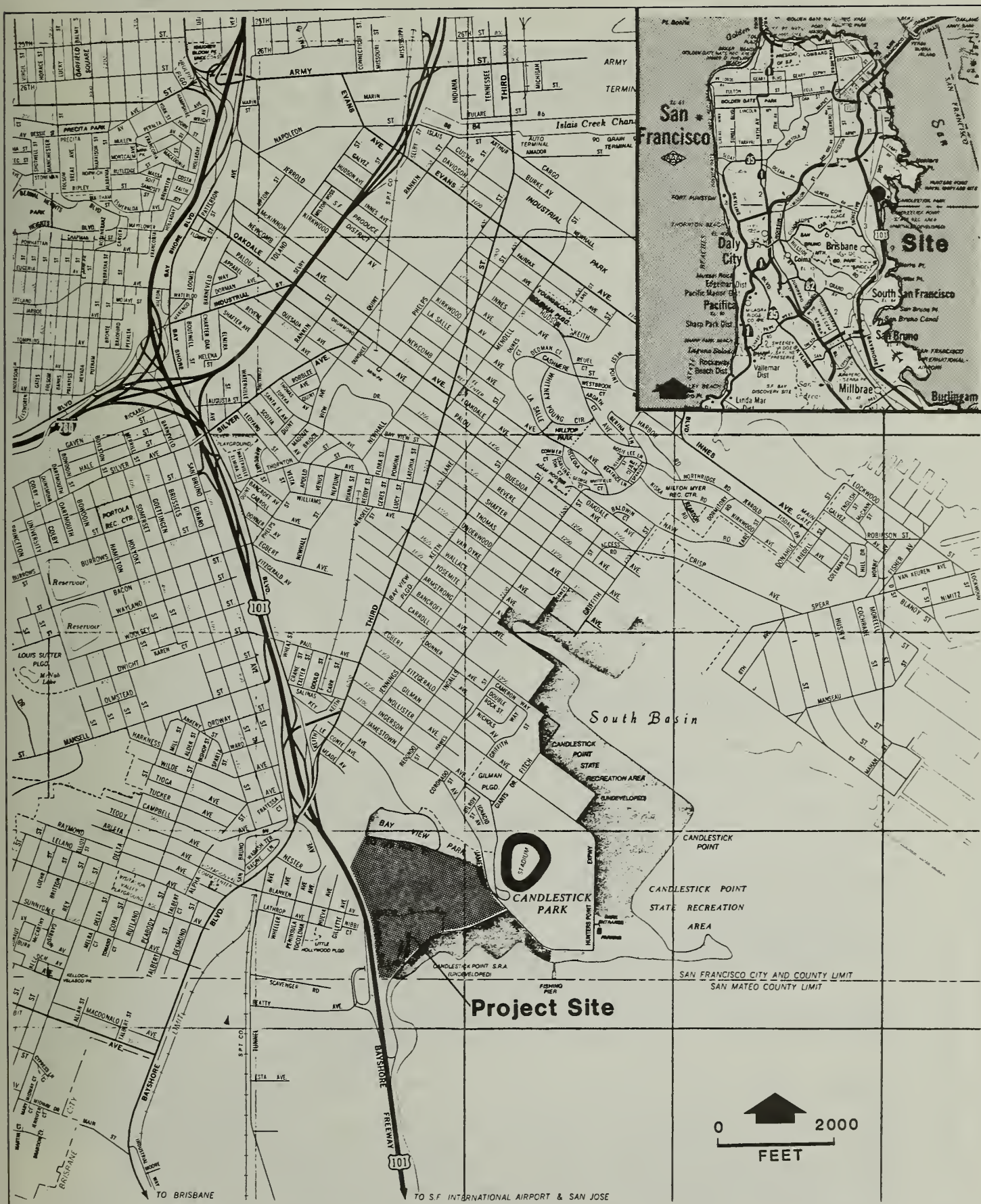
<u>Use</u>	<u>Amount</u>
office	1.2 million sq. ft.
hotel	230,000 sq. ft.
retail/restaurant	50,000 sq. ft.
residential	up to 500 units
parking	4,300 spaces

---

SOURCE: Hellmuth, Obata and Kassabaum, Inc.

---





SOURCE: Reproduced by permission of  
California State Automobile Association

FIGURE 1: Site Location Map



Four buildings have been approved under the previous Master Plan and Master Plan EIR. Two office buildings (known as OB 1 and 2) have been completed between the site and the Bay and a third building (OB 3) has received approvals and permits. A fourth (OB 4) is planned for construction. These four buildings are part of the original San Francisco Executive Park proposal approved in 1976 and are not part of the present project. For the purposes of environmental evaluation, the existing buildings, OB 1 and 2, will be considered part of the setting, and OB 3 and 4 will be considered as impacts of cumulative development on the project site.

The proposal would construct office uses above ground-floor parking levels and residential units above offices on the northwest portion of the site. Office uses would be situated on the mid-west portion of the site facing Executive Park Blvd., and residential uses would be constructed on the eastern portion of the site. A hotel use would be located at the end of Thomas Mellon Dr. The project would include a restaurant located on the hillside, accessible via a funicular (tramway) from the hotel, overlooking the other portions of the development with a view of the Bay. Figure 2, p. 200, is a site plan of the project which shows locations of proposed uses and the locations of buildings OB 1-4. Proposed office and office/residential structures would range in height from 4 to 13 stories; hotel structure(s) would range up to about 19 stories. The design is conceptual and final architectural styles, facade materials and colors, detailed building massing and landscape plans would be developed in consultation with the Department of City Planning as a condition of approval of the proposed Master Plan. The exact number, type and projected sale prices of residential units also have not been determined. The project would be constructed in about 8 phases, with a 2-year completion period per phase.

The project sponsor is Campeau Corporation California; the project architect is Hellmuth, Obata and Kassabaum, Inc., San Francisco.

### III. SUMMARY OF FINDINGS

The following items have been determined to have environmental effects which would not be significant:

Relocation of Residents or Businesses. The site is vacant and no residents or businesses would be displaced by the project.

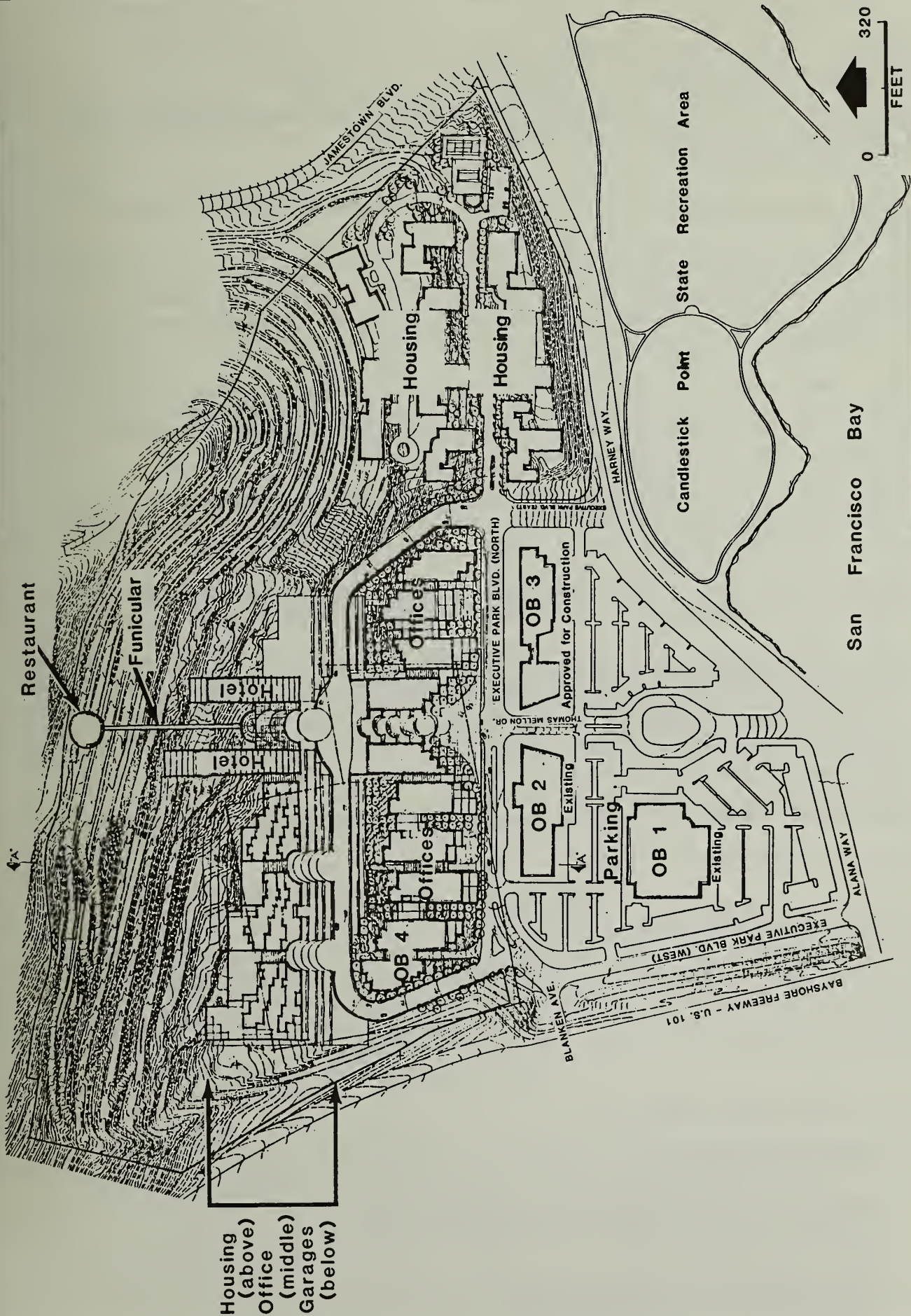
Airport Noise. Noise levels generated by air traffic from the San Francisco Airport would be below recommended levels for office and residential uses.

Construction Noise. Construction noise would not impact other uses because of the site's physical separation from sensitive receptors.

Shadows. The project would not result in new shadows on public open space.

Fire. The Fire Department indicates that it would have adequate capacity to serve the proposed project. Additional equipment and personnel may be required to serve the project area if additional development should occur. See mitigation measure on p. 210 to reduce the need for Fire Department staff and equipment to serve the project site.

Police. At this time, the Police Department cannot determine whether additional personnel or equipment would be required to serve the project site (see mitigation measure on p. 210).



The placement of structures is conceptual and does not indicate exact locations of proposed buildings.

SOURCE: Hellmuth/Obata/Kassabaum, Inc.

FIGURE 2: Site Plan



Schools. The San Francisco Unified School District has the schoolroom capacity to serve additional children from the development.

Electric/Gas. Pacific Gas and Electric Company would have an adequate supply of energy to meet project demand without the need for additional power plants not already planned.

Communications Systems. Serving agencies have the capacity to serve the project.

Water. The existing water main located under Executive Park Blvd. would be extended to provide service to the project site. The Water Department indicates that this main would have adequate capacity to serve the project at full buildout.

Sewer. New lines or an augmented sewer line system would need to be installed to serve the project. The Department of Public Works indicates that the existing sanitary sewer system on Harney Way and the Southeast Wastewater Treatment Plant have adequate capacity to serve the site.

Solid Waste Collection and Disposal. The Sunset Scavenger Company would be able to collect wastes from the project site; the fill site has the disposal capacity to accept wastes from the site.

Hazards. The project sponsor has agreed to a mitigation measure on pp. 210 to provide for an emergency plan to correspond to the City's plan.

Historic/Archaeologic. An archaeological reconnaissance of the site was undertaken by Miley Paul Holman in 1976 (included as part of the original San Francisco Executive Park EIR, certified August 12, 1976, on file with the Department of City Planning). No surface indications of archaeological remains on or near the site were found. The project would not affect a known archaeologic resource; no historic structures are located on the site. The project sponsor has agreed to the mitigation measure on p. 210 in the event archaeologic resources are discovered during project construction.

### POTENTIAL ENVIRONMENTAL EFFECTS

The project potentially could have significant environmental effects in the following areas, and these will be included in the EIR on the project: land use compatibility, project effects on Candlestick State Park and Candlestick Hill open space, urban design, visual effects, wind, population, employment, housing, transportation, circulation (including cumulative effects), effects of freeway noise on the project uses, air quality, geology, seismicity and hydrology, energy use, biology, and growth induction.

### III. INITIAL STUDY CHECKLIST

#### A. GENERAL CONSIDERATIONS

- |   | <u>Yes</u> | <u>Maybe</u> | <u>No</u> | <u>N/A</u> | <u>Disc.</u> |
|---|------------|--------------|-----------|------------|--------------|
| 1. Would the project conflict with objectives and policies in the Comprehensive Plan (Master Plan) of the City? |            | X            |           |            |              |
| 2. Would the project require a variance, or other special authorization under the City Planning Code?           | X          |              |           |            | X            |



### XIII. Appendices

- |  | <u>Yes</u> | <u>Maybe</u> | <u>No</u> | <u>N/A</u> | <u>Disc.</u> |
|--|------------|--------------|-----------|------------|--------------|
| 3. Would the project require approval of permits from City Departments other than DCP or BBI, or from Regional, State or Federal Agencies? |            |              | X         |            |              |
| 4. Would the project conflict with adopted environmental plans and goals?  |            | X            |           |            | X            |

The relationship of the project to the Comprehensive Plan will be evaluated in the EIR.

The project may be subject to Discretionary Review by the City Planning Commission. The project would require a rezoning from the 40-X Height and Bulk District.

#### B. ENVIRONMENTAL IMPACTS

- |  | <u>Yes</u> | <u>Maybe</u> | <u>No</u> | <u>N/A</u> | <u>Disc.</u> |
|--|------------|--------------|-----------|------------|--------------|
| 1. <u>Land Use.</u> Would the proposed project:                            |            |              |           |            |              |
| a. Be different from surrounding land uses?                                | X          |              |           |            |              |
| b. Disrupt or divide the physical arrangement of an established community? |            | X            |           |            |              |

The EIR will discuss the relationship of the proposed land uses in the project to existing surrounding land uses, and the potential land use effects of the project on existing uses, including Candlestick Hill open space, Candlestick State Park, and the Bayview Hunter's Point and Little Hollywood residential areas.

- |  | <u>Yes</u> | <u>Maybe</u> | <u>No</u> | <u>N/A</u> | <u>Disc.</u> |
|--|------------|--------------|-----------|------------|--------------|
| 2. <u>Visual Quality and Urban Design.</u> Would the proposed project: |            |              |           |            |              |
| a. Obstruct or degrade any scenic view or vista open to the public?    |            | X            |           |            |              |
| b. Reduce or obstruct views from adjacent or nearby buildings?         |            |              | X         |            |              |
| c. Create a negative aesthetic effect?                                 |            | X            |           |            |              |
| d. Generate light or glare affecting other properties?                 |            | X            |           |            |              |

The project would result in a change in the appearance of the project site, which is now primarily heavily disturbed open space. The project would be visible from U.S. 101 and from Bayview Park and Candlestick Point State Recreation Area, but views of the site from other locations may be partially or totally blocked by the elevated freeway or landforms. There are no buildings immediately adjacent to the project site. The architectural style has not been determined. The EIR will discuss the visibility and appearance of the project and will analyze potential view blockage from neighborhoods.

### XIII. Appendices

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
3. <u>Population/Employment/Housing.</u> Would the proposed project:					
a. Alter the density of the area population?	<u>X</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
b. Have a growth-inducing effect?	<u>X</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
c. Require relocation of housing or businesses, with a displacement of people, in order to clear the site?	<u>      </u>	<u>      </u>	<u>X</u>	<u>      </u>	<u>      </u>
d. Create or eliminate jobs during construction and operation and maintenance of the project?	<u>X</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
e. Create an additional demand for housing in San Francisco?	<u>      </u>	<u>X</u>	<u>      </u>	<u>      </u>	<u>      </u>

The EIR will discuss population, employment, housing, and growth-inducing effects of the project. The site is vacant and no jobs or residents would be displaced by the project.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
4. <u>Transportation/Circulation.</u> Would the construction or operation of the project result in:					
a. Change in use of existing transportation systems?	<u>X</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
b. An increase in traffic which is substantial in relation to existing loads and street capacity?	<u>      </u>	<u>X</u>	<u>      </u>	<u>      </u>	<u>      </u>
c. Effect on existing parking facilities, or demand for new parking?	<u>      </u>	<u>X</u>	<u>      </u>	<u>      </u>	<u>X</u>
d. Alteration to current patterns of circulation or movement of people and/or goods?	<u>X</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>
e. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	<u>      </u>	<u>X</u>	<u>      </u>	<u>      </u>	<u>      </u>
f. A need for maintenance or improvement or change in configuration of existing public roads or facilities?	<u>      </u>	<u>X</u>	<u>      </u>	<u>      </u>	<u>      </u>
g. Construction of new public roads?	<u>      </u>	<u>X</u>	<u>      </u>	<u>      </u>	<u>      </u>

The transportation and circulation effects of the project will be analyzed in the EIR and will include pedestrian and vehicular traffic and transit demand generated by the project in relation to existing conditions, capacity and service levels on local streets, freeways and transit systems, including peak hour demands and the influence of Candlestick Park traffic. The proposed

interior roadway system will be described and analyzed. The project would include parking facilities and the proposed supply will be compared to the projected demand. Effects of cumulative development, including the project, will be analyzed for the above topics.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
5. <u>Noise.</u>					
a. Would the proposed project result in generation of noise levels in excess of those currently existing in the area?	<u>X</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>X</u>
b. Would existing noise levels impact the proposed use?	<u>      </u>	<u>X</u>	<u>      </u>	<u>      </u>	<u>X</u>
c. Are Title 25 Noise Insulation Standards applicable?	<u>X</u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>X</u>

Construction activities, including excavation, grading, foundation preparation, steel erection and finishing would generate higher noise levels at the site than currently exist. Pile driving would not be required for foundations (Jack Ritter, Vice President, Williams and Burrows General Contractors, written communication, September 6, 1982). Because the site is physically separated from potentially noise sensitive land uses (residences), project-related construction noise would not adversely affect these land uses during construction phases.

After project completion, increased noise levels would be associated primarily with increased vehicle traffic at the site. Airport noise would not be expected to affect the project. The Airport Noise Abatement Control Center takes noise readings in various locations to monitor noise from the airport. The closest reading to the project site is recorded in Brisbane with the highest (exterior) reading for the month of June at 59 dB Ldn within a 24-hour period. Interior noise levels from this reading would be reduced by 15-20 dBA with closed windows (FHWA, February 8, 1972, Policy and Procedure Memorandum 90-2; and May, D.N., 1978, Handbook of Noise Assessment). Readings are weighted by a factor of 3 between the hours of 7 p.m. to 10 p.m. and by a factor of 10 between the hours of 10 p.m. to 7 a.m. Noise readings at the project site from airport sources would be lower than the reading at Brisbane (Louis Gouygou, Noise Abatement Technician, San Francisco International Airport, telephone communication, July 14, 1982). The maximum noise level allowed by State law for airport noise is 70 dB; the Environmental Protection Element of the San Francisco Comprehensive Plan allows a maximum of 60 dB for residential use of land and 65 dB for office uses without any special provisions for noise abatement in construction.

Noise from traffic on U.S. 101 dominates the noise environment near the freeway; project residences could be affected by this noise unless separated by structures or distance. While the majority of housing is proposed at some distance from the freeway, some units would be located near the freeway. Effects of freeway noise on these units will be analyzed in the EIR. Title 25 requires that interior noise levels for residences not exceed 40 decibels (dB); this requirement would be applicable to the project.



## XIII. Appendices

Yes Maybe No N/A Disc.

6. Air Quality/Climate. Would the proposed project result in:

a. Violation of any ambient air quality standard or contribution to an existing air quality violation?

\_\_\_\_\_ X \_\_\_\_\_

b. Exposure of sensitive receptors to air pollutants?

\_\_\_\_\_ X \_\_\_\_\_

c. Creation of objectionable odors?

\_\_\_\_\_ X \_\_\_\_\_

d. Burning of any materials including brush, trees, or construction materials?

\_\_\_\_\_ X \_\_\_\_\_

e. Alteration of wind, moisture or temperature (including sun shading effects), or any change in climate, either locally or regionally?

\_\_\_\_\_ X \_\_\_\_\_

Air quality effects from project-related construction and traffic will be analyzed in the EIR. A model of the project will be tested in a wind tunnel and the results presented in the EIR.

The project would not cast any shadows on existing buildings or public open space.

Yes Maybe No N/A Disc.

7. Utilities and Public Services. Would the proposed project have an effect upon, or result in a need for new or altered, governmental services in any of the following?

fire protection

\_\_\_\_\_ X \_\_\_\_\_ X

police protection

\_\_\_\_\_ X \_\_\_\_\_ X

schools

\_\_\_\_\_ X \_\_\_\_\_ X

parks or other recreational facilities

\_\_\_\_\_ X \_\_\_\_\_

maintenance of public facilities

\_\_\_\_\_ X \_\_\_\_\_ X

power or natural gas

X \_\_\_\_\_ X

communications systems

X \_\_\_\_\_ X

water

X \_\_\_\_\_ X

sewer/storm water drainage

X \_\_\_\_\_ X

solid waste collection and disposal

X \_\_\_\_\_ X

Fire flows at the site are adequate to serve the existing site. Response time to the site is about 2.5 minutes from Fire Station 44, located at 1298 Girard Street. The project would incorporate all emergency response systems stipulated by the Life Safety Code including fire alarms, an automatic sprinkler system, an emergency communication system, an emergency power supply and an on-site emergency water supply. These measures would reduce hazards to building occupants during an earthquake or fire. An additional aerial ladder company and crew may be needed if additional development were proposed in this area. The project itself would not generate a need for additional personnel

or equipment in order to serve the site (Cornelius Murphy, Chief, San Francisco Fire Department, written communication, August 2, 1982). See mitigation measure on p. 210.

The site is in the San Francisco Police Department's Potrero District. The site has a low crime rate compared to the Potrero District and to the City as a whole. Response time is 3 minutes for high priority calls (robbery, rape and assault in progress). At this time, the Police Department cannot determine what effect the project would have on its operations. The effect would be primarily determined by the amount of development in each phase and conditions in effect at that time (Sergeant Libert, Planning and Research Division, San Francisco Police Department, telephone communication, July 26, 1982 and written communication July 21, 1982). The project would incorporate mitigation measures to reduce the need for additional police services to serve the site (see p. 210).

The project would include housing and thus probably would have some school age children as residents. San Francisco public schools have experienced declining enrollments over the past several years and could accommodate an increase in school age children from the project (San Francisco Unified School District, Proposal for Leasing and Selling Vacant Property, April 29, 1980, pp. 28-29).

Residents and employees at the project would increase the demand for recreation space. Bayview Park and Candlestick Hill are located just north of the site. Increased usage of Candlestick Hill by project residents would increase the potential for grass fires and erosion. Recreational facilities would probably be included in residential structures, although no formal plans exist at present. A State recreation area (Candlestick Point State Recreation Area) is located to the east of the project site. Increased demand for recreational facilities by project workers and residents will be discussed in the EIR.

The increased traffic volumes generated by the project would result in additional wear on local roadways. If streets and street lights within the development were dedicated to the City, the City would be responsible for their maintenance.

Utility and public service facilities to provide gas, electricity, telephones, water and sewers would be installed to serve the project. The facilities would meet all applicable codes; utilities would be installed underground.

In order to serve the project, gas and electricity lines would have to be extended to structures from present mains which are located under Executive Park Blvd. PG&E has projected energy demands in its service area (which includes the Bay region) 20 years in the future, based on land use patterns and market activity. According to PG&E projections, it will have adequate supply of energy to meet the demand without the need for additional power plants not already planned (Hudson Martin, Supervisor, Energy Economics, Economics and Statistics Department, PG&E, telephone communication, May 27, 1982).

Pacific Telephone and Telegraph Co. previously installed adequate facilities to supply the office, retail and hotel area approved in the previous San Francisco Executive Park Master Plan. Because of the additional office floor area and the introduction of residential uses now proposed, additional work may be required on Blanken Ave. near Bayshore Rd. and near Executive Park Blvd., but excavation would not be required along the length of the street



between these two points (Joseph Richards, Outside Plan Engineer, Pacific Telephone and Telegraph, telephone communication, July 21, 1982).

Water demand is projected to be roughly 140,000 gallons per day. New lines would have to be added to proposed buildings from the existing water main located under Executive Park Blvd. This main is large enough to meet the projected demand (Cy Wentworth, Estimator, San Francisco Water Department, telephone communication, August 20, 1982).

The project site has two separate sewer systems, sanitary sewers and storm sewers. The storm sewers are sized to accommodate storm runoff from the site. There are 12-inch sanitary sewers that exist in the developed areas of the site. New sanitary facilities would have to be connected to the existing system or an entirely new system would have to be constructed and connected to the 2'6" x 3'9" interceptor sewer under Harney Way in order to accommodate the proposed structures. The existing sanitary system already connects to the Harney Way interceptor system. Average wastewater generation is projected to be roughly 110,000 gallons per day. The Southeast Wastewater Treatment Plant located on Jerrold Ave. between Phelps and Quint Sts. receives flows from the site. This plant has the capacity to accept projected flows from the project. (J.M. dela Cruz, San Francisco Department of Public Works, written communication, August 25, 1982).

The Sunset Scavenger Company, in collaboration with Solid Waste Engineering, provides solid waste collection and disposal services to the site. Wastes are currently disposed of at a fill site in Mountain View; the contract for this site expires in 1983. Arrangements are being finalized for a 5-year contract on a site in Altamont. Solid waste generation from the project is projected to be 8.6 tons per day at full buildout. The company could provide service to the site; access to the site is adequate for collection trucks. The company recommends installation of trash compactors whenever possible (Leo Maionchi, Manager, Solid Waste Engineering, telephone communication, July 23, 1982).

Yes Maybe No N/A Disc.

#### 8. Biology.

- |   |               |                               |                               |               |                               |
|---|---------------|-------------------------------|-------------------------------|---------------|-------------------------------|
| a. Would there be a reduction in plant and/or animal habitat or interference with the movement of migratory fish or wildlife species? | <u>      </u> | <u>      </u> X <u>      </u> | <u>      </u>                 | <u>      </u> | <u>      </u> X <u>      </u> |
| b. Would the project affect the existence or habitat of any rare, endangered or unique species located on or near the site?           | <u>      </u> | <u>      </u> X <u>      </u> | <u>      </u>                 | <u>      </u> | <u>      </u>                 |
| c. Would the project require removal of mature scenic trees?  | <u>      </u> | <u>      </u>                 | <u>      </u> X <u>      </u> | <u>      </u> | <u>      </u>                 |

The EIR will discuss the biological conditions of the site including, any rare or endangered species of plant or wildlife that exist on the site, what habitat would be removed, and landscaping proposed as part of the project.



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- |  | <u>Yes</u> | <u>Maybe</u> | <u>No</u> | <u>N/A</u> | <u>Disc.</u> |
|--|------------|--------------|-----------|------------|--------------|
| 9. <u>Land.</u> (topography, soils, geology) Would the proposed project result in or be subject to:  |            |              |           |            |              |
| a. Potentially hazardous geologic or soils conditions on or immediately adjoining the site (slides, subsidence, erosion and liquefaction)? | X          |              |           |            |              |
| b. Grading (consider height, steepness and visibility of proposed slopes; consider effect of grading on trees and ridge tops)?             | X          |              |           |            |              |
| c. Generation of substantial spoils during site preparation, grading, dredging or fill?  |            | X            |           |            |              |

The EIR will discuss the geologic conditions of the site, soil characteristics, proposed grading plan, soil stability and the potential for erosion. The grading plan has not been completed at this time, and removed earth may be redistributed over the site or disposed of at an offsite location.

- |  | <u>Yes</u> | <u>Maybe</u> | <u>No</u> | <u>N/A</u> | <u>Disc.</u> |
|--|------------|--------------|-----------|------------|--------------|
| 10. <u>Water.</u> Would the proposed project result in:  |            |              |           |            |              |
| a. Reduction in the quality of surface water?  |            | X            |           |            |              |
| b. Change in runoff or alteration to drainage patterns?  | X          |              |           |            |              |
| c. Change in water use?  | X          |              |           |            |              |
| d. Change in quality of public water supply or in quality or quantity (dewatering) of groundwater? |            | X            |           |            |              |

Hydrologic aspects of the site and effects of the project will be analyzed in the EIR.

- |   | <u>Yes</u> | <u>Maybe</u> | <u>No</u> | <u>N/A</u> | <u>Disc.</u> |
|---|------------|--------------|-----------|------------|--------------|
| 11. <u>Energy/Natural Resources.</u> Would the proposed project result in:                      |            |              |           |            |              |
| a. Any change in consumption of energy?   | X          |              |           |            |              |
| b. Substantial increase in demand on existing energy sources?                                   |            | X            |           |            |              |
| c. An effect on the potential use, extraction, conservation or depletion of a natural resource? |            | X            |           |            |              |

The project would represent an increase in energy consumption on the site. Projected energy consumption will be analyzed in the EIR; project-related consumption will be compared to PG&E's projected demand and supply.

### XIII. Appendices

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
12. <u>Hazards</u> . Would the proposed project result in:					
a. Increased risk of explosion or release of hazardous substances (e.g., oil, pesticides, chemicals or radiation), in the event of an accident, or cause other dangers to public health and safety?			X		
b. Creation of or exposure to a potential health hazard?			X		
c. Possible interference with an emergency response plan or emergency evacuation plan?			X		X

No explosive or hazardous materials would be manufactured on the site, nor would any public health hazard due to project operation be expected. The sponsor has agreed to the mitigation measure on p. 210 of this Initial Study to reduce the effect of the project on the City in the event of a major disaster or emergency.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>	<u>N/A</u>	<u>Disc.</u>
13. <u>Cultural</u> . Would the proposed project:					
a. Include or affect an historic site, structure or building?			X		
b. Include or affect a known archaeological resource or an area of archaeological resource potential?		X			X
c. Cause a physical change affecting unique ethnic or cultural values?		X			

An archaeological reconnaissance of the site and a records search revealed neither surface indications of archaeological remains or recorded archaeological resource on the site (Miley Paul Holman, Assistant Curator, Anthropology Museum, San Francisco State University, Report, March 23, 1976, published in the Final Environmental Impact Report, San Francisco Executive Park, EE 75.198, Certified August 12, 1976, Volume II, Appendices, p. 109). The potential exists for materials to be present on the site and to be uncovered during project construction. The project sponsor has agreed to the mitigation measure on p. 210 in this event.

Community and neighborhood groups and residents will be contacted to elicit their concerns about the potential effects of the project on existing neighborhoods.

#### C. MITIGATION MEASURES

	<u>Yes</u>	<u>No</u>	<u>Disc.</u>
Are mitigation measures included in the project?	X		X
Are other mitigation measures available	X		X

The following measures are proposed as part of the project:

#### Hazards

- An evacuation and emergency response plan would be developed by the project sponsor or building management staff, in consultation with the Mayor's Office of Emergency Services (OES), to insure coordination between the City's emergency planning activities and the project's plan and to provide for building occupants in the event of an emergency. The project's plan would be reviewed by the OES and implemented by building management before issuance by the Department of Public Works of final building permits.

#### Cultural

- Should evidence of significant cultural or historic artifacts be found at the site during project excavation, the Environmental Review Officer and the President of the Landmarks Preservation Advisory Board would be notified. The project sponsor would select an expert archaeologist to help the office of Environmental Review determine the significance of the find and whether feasible measures, including appropriate security measures, could be implemented to preserve or recover such artifacts. The Environmental Review Officer would then recommend specific mitigation measures, if necessary, and recommendations would be sent to the State Office of Historic Preservation. Excavation or construction which might damage the discovered cultural resources would be suspended for a maximum of four weeks to permit inspection, recommendation and retrieval, if appropriate.

#### Utilities and Public Services

- The project would provide internal security measures, such as security guards, well-lighted entries, alarm systems, and emergency communication systems, power supply and water supply for office uses to minimize the need for police and fire services and to reduce hazards to building occupants during an earthquake or fire. See also the mitigation measure above concerning hazards.
- The project design would incorporate low-flow faucet and toilet fixtures to reduce water consumption.

Other measures will be included in the EIR as appropriate.

#### D. ALTERNATIVES

Yes No Disc.

Were other alternatives considered?

X      X

The following alternatives will be compared to the environmental effects of the proposed project in the EIR.

1. No project alternative, including use of the site for open space.
2. Development of the San Francisco Executive Park Master Plan approved in 1976.
3. No construction of buildings above the 100 foot elevation.



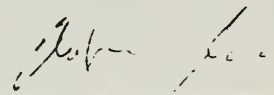
E. MANDATORY FINDINGS OF SIGNIFICANCE

	<u>Yes</u>	<u>No</u>	<u>Disc.</u>
1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<u>X</u>	<u>      </u>	<u>      </u>
2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	<u>      </u>	<u>X</u>	<u>      </u>
3. Does the project have possible environmental effects which are individually limited, but cumulatively considerable?	<u>X</u>	<u>      </u>	<u>      </u>
4. Would the project cause substantial adverse effects on human beings, either directly or indirectly?	<u>      </u>	<u>X</u>	<u>      </u>
5. Is there a serious public controversy concerning the possible environmental effect of the project?	<u>      </u>	<u>X</u>	<u>      </u>

Public interest has been raised concerning development of this site.

On the basis of this initial evaluation:

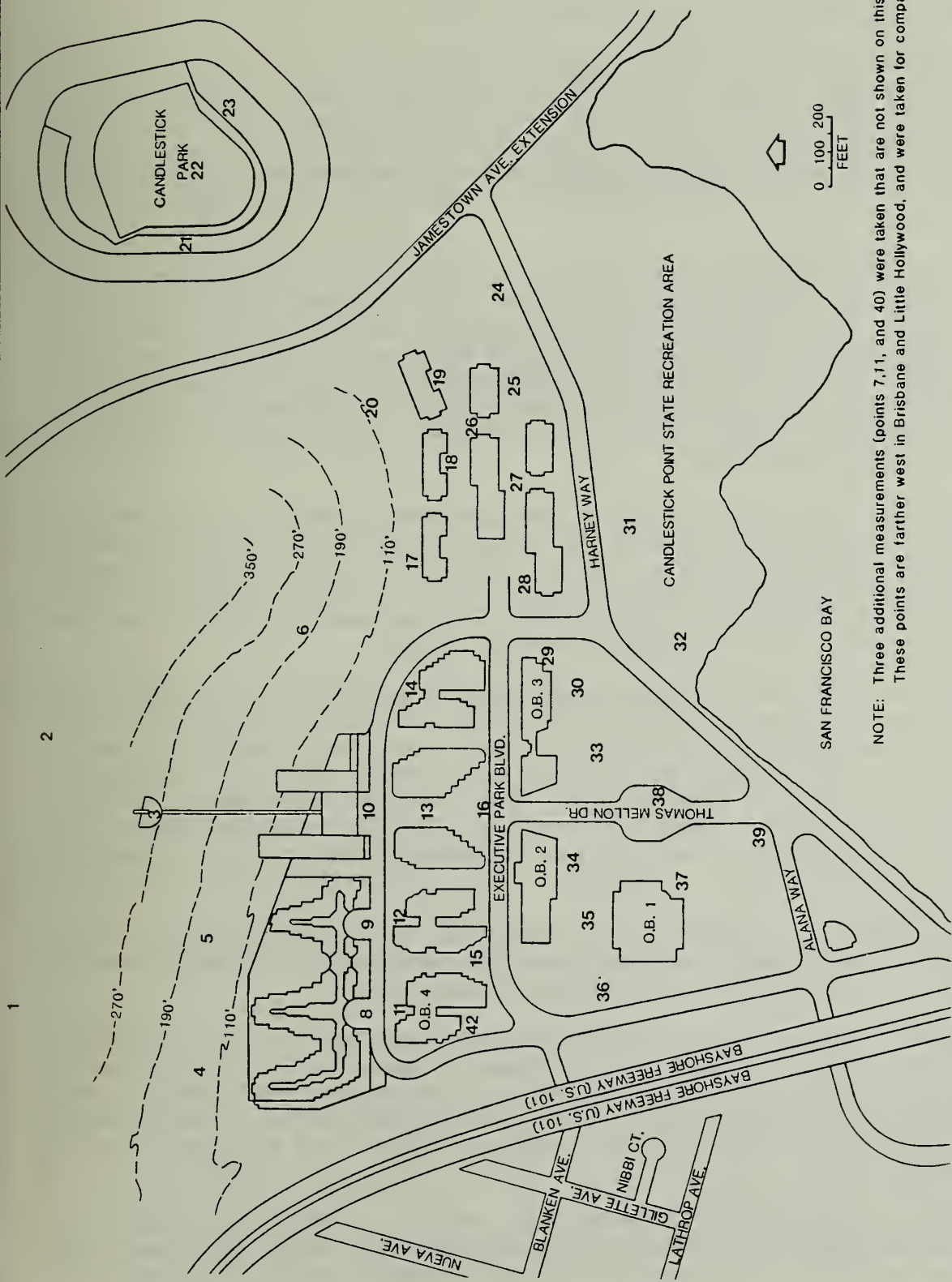
- I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Department of City Planning.
- I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.
- X I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

  
Robert W. Passmore  
Assistant Director - Implementation

for

Dean Macris  
Director

Date: 9/21/82



NOTE: Three additional measurements (points 7, 11, and 40) were taken that are not shown on this map. These points are farther west in Brisbane and Little Hollywood, and were taken for comparative purposes.

FIGURE C-1: LOCATION OF NEAR SURFACE  
WIND SPEED MEASUREMENTS

SOURCE  
ENVIRONMENTAL SCIENCE ASSOCIATES, INC.; AND  
DR. BRUCE WHITE

APPENDIX D: TRANSPORTATION, CIRCULATION & PARKING  
(Environmental Science Associates)

EMPLOYEE QUESTIONNAIRE SURVEY AND RESULTS

A questionnaire survey of employees currently working at the Executive Park site was made by Environmental Science Associates, Inc. in October 1982./1/ The purpose of the survey was two fold; to obtain data concerning employee travel habits (methods of commuting, parking locations, midday travel, arrival and departure times) and to obtain socio-economic data (area of residence, household income and expenses, length of time at the site, hours per week worked, job categories). A copy of the questionnaire is shown in Figure D-1, p. 214.

There are currently 485 employees at a total of 35 firms in the two buildings (OB1, OB2) on the Executive Park site. Eighty percent of the firms responded. The total return on the questionnaire was 177 (about 36% of the employees responded). About 60% of the employees in each responding firm responded to the questionnaire. The 36% response was determined to be sufficient to statistically represent the employee population on-site. The average number of employees per firm that responded (60%) was determined to be adequate to serve as a basis for the socio-economic projections (i.e., no class of employees was under-represented).

Several portions of the questionnaire data have been used to project future conditions. Two pieces of data used extensively in the transportation analysis are the residential distribution and method (mode) of travel. Table D-1. p. 215 shows the reduced questionnaire data for residence and mode, summarized by seven regional areas for employees traveling during peak commute periods. Approximately 40% of the employees surveyed travelled at times other than peak commute periods.

Table D-2, p. 216, shows the summarized data for mode of travel for all employees who travel during the peak period of 4:00 p.m. to 6:00 p.m. Seven percent (7%) of the employees commuting to the site use Muni. Three percent of the employees use A-C Transit and 3% of the employees use Golden Gate Transit. Very little evidence of employees using other transit agencies besides Muni was found in the results. No use of BART, SamTrans or Southern Pacific was reported. The A-C Transit and Golden Gate Transit users reached the site via a private employer-provided shuttle service from downtown transit terminals.

The largest number of employees (43%) were found to live on the Peninsula. San Francisco was the second largest area for employee residences (37%). Peninsula residents were shown to have the highest single-occupant auto use (98%).

Of the employees currently driving to the site, about 90% use their cars during the day for business or personal reasons. This may be attributed to the low intensity of development on-site. Between 15% and 20% of the current auto drivers indicated that they would consider using Muni, SamTrans, BART or SP if service were available to the Executive Park site. About 30% of the current auto drivers indicated that they would consider carpooling to the site.

In July, 1981, Campeau Corporation distributed an employee survey to the employees on the Executive Park site at that time./2/ The results from the survey, which had a 50% response rate from 80% of the twenty-five firms then on-site, are similar to the results



# SAN FRANCISCO EXECUTIVE PARK EMPLOYEE SURVEY

1. Please check the space below which corresponds to the location of your office:  
1. ☐ 5 Thomas Mellon Circle 2. ☐ 150 Executive Park Blvd.
2. Name of the company you work for:
3. Please check the space below which corresponds to the location of your residence:

San Francisco: (see map insert) Alameda County:

1. ☐ Downtown/Northeast
2. ☐ Northwest
3. ☐ Southwest
4. ☐ Southeast

Contra Costa County:

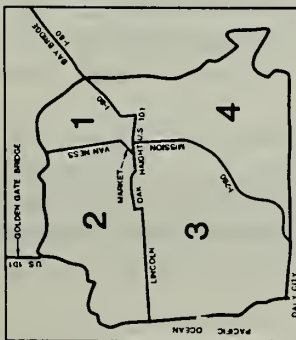
7. ☐ San Ramon, Walnut Creek, Concord, Orinda, Lafayette, Pittsburg, Antioch
8. ☐ Richmond, Albany, San Pablo, Sausalito

San Mateo County:

9. ☐ Daly City, Pacifica, Half Moon Bay, Sausalito
10. ☐ So. San Francisco, Brisbane, Burlingame, San Bruno, Belmont

San Clara County:

11. ☐ Santa Clara County
12. ☐ Marin or Sonoma County
13. ☐ Napa or Solano County
14. ☐ Other (specify) \_\_\_\_\_



4. How many months have you worked at your current site of employment? ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐ 21 ☐ 22 ☐ 23 ☐ 24 ☐ 25 ☐ 26 ☐ 27 ☐ 28 ☐ 29 ☐ 30 ☐ 31 ☐ 32 ☐ 33 ☐ 34 ☐ 35 ☐ 36 ☐ 37 ☐ 38 ☐ 39 ☐ 40 ☐ 41 ☐ 42 ☐ 43 ☐ 44 ☐ 45 ☐ 46 ☐ 47 ☐ 48 ☐ 49 ☐ 50 ☐ 51 ☐ 52 ☐ 53 ☐ 54 ☐ 55 ☐ 56 ☐ 57 ☐ 58 ☐ 59 ☐ 60 ☐ 61 ☐ 62 ☐ 63 ☐ 64 ☐ 65 ☐ 66 ☐ 67 ☐ 68 ☐ 69 ☐ 70 ☐ 71 ☐ 72 ☐ 73 ☐ 74 ☐ 75 ☐ 76 ☐ 77 ☐ 78 ☐ 79 ☐ 80 ☐ 81 ☐ 82 ☐ 83 ☐ 84 ☐ 85 ☐ 86 ☐ 87 ☐ 88 ☐ 89 ☐ 90 ☐ 91 ☐ 92 ☐ 93 ☐ 94 ☐ 95 ☐ 96 ☐ 97 ☐ 98 ☐ 99 ☐ 100 ☐ 101 ☐ 102 ☐ 103 ☐ 104 ☐ 105 ☐ 106 ☐ 107 ☐ 108 ☐ 109 ☐ 110 ☐ 111 ☐ 112 ☐ 113 ☐ 114 ☐ 115 ☐ 116 ☐ 117 ☐ 118 ☐ 119 ☐ 120 ☐ 121 ☐ 122 ☐ 123 ☐ 124 ☐ 125 ☐ 126 ☐ 127 ☐ 128 ☐ 129 ☐ 130 ☐ 131 ☐ 132 ☐ 133 ☐ 134 ☐ 135 ☐ 136 ☐ 137 ☐ 138 ☐ 139 ☐ 140 ☐ 141 ☐ 142 ☐ 143 ☐ 144 ☐ 145 ☐ 146 ☐ 147 ☐ 148 ☐ 149 ☐ 150 ☐ 151 ☐ 152 ☐ 153 ☐ 154 ☐ 155 ☐ 156 ☐ 157 ☐ 158 ☐ 159 ☐ 160 ☐ 161 ☐ 162 ☐ 163 ☐ 164 ☐ 165 ☐ 166 ☐ 167 ☐ 168 ☐ 169 ☐ 170 ☐ 171 ☐ 172 ☐ 173 ☐ 174 ☐ 175 ☐ 176 ☐ 177 ☐ 178 ☐ 179 ☐ 180 ☐ 181 ☐ 182 ☐ 183 ☐ 184 ☐ 185 ☐ 186 ☐ 187 ☐ 188 ☐ 189 ☐ 190 ☐ 191 ☐ 192 ☐ 193 ☐ 194 ☐ 195 ☐ 196 ☐ 197 ☐ 198 ☐ 199 ☐ 200 ☐ 201 ☐ 202 ☐ 203 ☐ 204 ☐ 205 ☐ 206 ☐ 207 ☐ 208 ☐ 209 ☐ 210 ☐ 211 ☐ 212 ☐ 213 ☐ 214 ☐ 215 ☐ 216 ☐ 217 ☐ 218 ☐ 219 ☐ 220 ☐ 221 ☐ 222 ☐ 223 ☐ 224 ☐ 225 ☐ 226 ☐ 227 ☐ 228 ☐ 229 ☐ 230 ☐ 231 ☐ 232 ☐ 233 ☐ 234 ☐ 235 ☐ 236 ☐ 237 ☐ 238 ☐ 239 ☐ 240 ☐ 241 ☐ 242 ☐ 243 ☐ 244 ☐ 245 ☐ 246 ☐ 247 ☐ 248 ☐ 249 ☐ 250 ☐ 251 ☐ 252 ☐ 253 ☐ 254 ☐ 255 ☐ 256 ☐ 257 ☐ 258 ☐ 259 ☐ 260 ☐ 261 ☐ 262 ☐ 263 ☐ 264 ☐ 265 ☐ 266 ☐ 267 ☐ 268 ☐ 269 ☐ 270 ☐ 271 ☐ 272 ☐ 273 ☐ 274 ☐ 275 ☐ 276 ☐ 277 ☐ 278 ☐ 279 ☐ 280 ☐ 281 ☐ 282 ☐ 283 ☐ 284 ☐ 285 ☐ 286 ☐ 287 ☐ 288 ☐ 289 ☐ 290 ☐ 291 ☐ 292 ☐ 293 ☐ 294 ☐ 295 ☐ 296 ☐ 297 ☐ 298 ☐ 299 ☐ 300 ☐ 301 ☐ 302 ☐ 303 ☐ 304 ☐ 305 ☐ 306 ☐ 307 ☐ 308 ☐ 309 ☐ 310 ☐ 311 ☐ 312 ☐ 313 ☐ 314 ☐ 315 ☐ 316 ☐ 317 ☐ 318 ☐ 319 ☐ 320 ☐ 321 ☐ 322 ☐ 323 ☐ 324 ☐ 325 ☐ 326 ☐ 327 ☐ 328 ☐ 329 ☐ 330 ☐ 331 ☐ 332 ☐ 333 ☐ 334 ☐ 335 ☐ 336 ☐ 337 ☐ 338 ☐ 339 ☐ 340 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☐ 1149 ☐ 1150 ☐ 1151 ☐ 1152 ☐ 1153 ☐ 1154 ☐ 1155 ☐ 1156 ☐ 1157 ☐ 1158 ☐ 1159 ☐ 1160 ☐ 1161 ☐ 1162

TABLE D-1: RESIDENTIAL DISTRIBUTION AND MODAL SPLIT FOR EXECUTIVE PARK EMPLOYEES

<u>Geographic Area</u>	<u>Percent of Responses*</u>	<u>Travel Mode</u>	<u>Percent of Responses**</u>
<u>San Francisco</u>			
Downtown/Northeast (East of Van Ness, North of Market to the Embarcadero, South of Market to 101)	4	Drive alone Ride w/one other Muni	50 25 25
Northwest (Richmond, Marina, Western Addition)	11	Drive alone Ride w/one other Carpool (3+) Muni	75 8 8 9
Southwest (Sunset, Parkside, Ingleside, Excelsior, Twin Peaks, and Upper Market)	13	Drive alone Muni	93 7
Southeast (Potrero Hill, Bayview, Hunters Point, East and South of 101)	9	Drive alone Muni Bicycle	50 40 10
<u>Peninsula</u> (San Mateo and Santa Clara Counties)	43	Drive alone Muni	98 2
<u>East Bay</u> (Alameda and Contra Costa Counties)	12	Drive alone Carpool (3+) AC	69 8 23
North Bay (Marin and Sonoma Counties)	8	Drive alone Carpool (3+) Golden Gate Transit	56 11 33

\* Percent of travel with origins or destinations in each geographic area.

\*\* Percent of travel in each geographic area using listed mode of travel.

SOURCE: Environmental Science Associates.

TABLE D-2: PEAK PERIOD TRAVEL MODE FOR EXECUTIVE PARK EMPLOYEES

<u>Mode of Travel</u>	<u>Percent Using</u>
Drive alone in an auto	81%
Ride with one other in an auto	2%
Ride in an organized carpool or vanpool of 3 or more	3%
Muni	7%
AC Transit	3%
Golden Gate Transit	3%
Bicycle	1%
	<u>100%</u>

SOURCE: Environmental Science Associates, Inc.

of the survey distributed by ESA in 1982 in that a large percentage (90%) of the responding employees drive to work and that most of the employees (80%) live either in San Francisco or on the Peninsula. The 1981 survey found that 43% of the employees lived in San Francisco and 35% lived on the Peninsula. In contrast, the 1982 survey found that 43% of the current employees live on the Peninsula and 37% live in San Francisco.

The 1981 survey found that 3% of the employees used Muni to travel to and from the site. Muni use increased to 7% in the 1982 survey. About 7% of the 1981 employees travelled in carpools (3%) or vanpools (4%). Higher-occupancy vehicle use over the entire workday increased to 8% in the 1982 survey with 6% in carpools and 2% in vanpools. About 25% of the 1981 auto drivers indicated that they would consider ridesharing (carpool/vanpool) to the site, whereas about 30% of the 1982 auto drivers so indicated.

#### TRIP GENERATION

Trip generation references were researched to determine the appropriate rates for the proposed project land uses. The standard rates report travel in vehicle trip-ends because trip generation data collection usually consists of placing automatic counters on driveways to count vehicular traffic entering and exiting a study site. These counts isolate (cordon) the site and include traffic to and from the site only. These studies are usually done in areas outside of the central business district of larger cities, since it would be difficult to isolate traffic traveling to or from specific sites in downtown areas. Travel to and from the study sites by other modes (walking, transit) is generally considered minimal. Vehicle occupancy (persons per vehicle) data is usually collected as well.

In the case of the project, where it is suspected or known that not all of the travel to or from the project site would occur in vehicles, it is necessary to generate travel on a person trip-end basis (a trip by a person to or from the site) and then to distribute the travel to appropriate modes (vehicles, transit, walking, etc.). Given the vehicle trip rate and the vehicle occupancy, one can estimate the person trip rate by multiplying the vehicle



trip rate by the number of persons per vehicle (vehicle occupancy). This process was used to determine the person trip rates for the project land uses.

As mentioned above, the trip rates are for specific land uses on isolated sites. In mixed-use developments similar to the project, travel occurs among land uses within the project site. Thus, only a portion of the total travel generated actually enters or leaves the project site. Also, when the trip generation rates are applied to all the land uses in a mixed-use development, the travel among the uses is double-counted. An example of this would be a trip between an office and a restaurant. On the site, the trip generation rates would count this as two trips because it is included in both the office and restaurant rates, whereas only one trip would actually be made.

To compensate for these double-counting effects, an estimate was made of travel internal to the site. Office travel and residential travel were categorized by purpose (home-to-work, shopping, etc.) on the basis of published standards.<sup>/3/</sup> The amount of internal travel for each trip purpose was estimated and travel between corresponding residential and office purposes (i.e. home-to-work) was counted only once.

#### CUMULATIVE DEVELOPMENT

The impact of cumulative development was assessed at two levels: development that would generate travel on local streets and transit routes and development that would generate travel on the Bayshore Freeway (US 101). Because access to the project site is limited to three surface streets (Harney Way / Alana Way / Blanken Ave.) and because the Bay and the Southern Pacific mainline limit access to the project area in general, only two developments outside of the approved uses on the project site (OB 3 and OB 4), were considered in the local cumulative analysis. The two projects (Bayshore Office Park and Baylands Development Area) are both in Brisbane and would have access to Tunnel Ave. Several proposals in the Specific Plan for the Baylands Development Area would provide for new access to the south (to Sierra Point in Brisbane) and to the west (to Bayshore Blvd.). All travel data for the two Brisbane developments was taken from the Specific Area Plan for the development.<sup>/4/</sup>

Travel estimates for the approved uses on the project site (OB 3, OB 4 and the restaurant to be located south of Alana Way) were calculated using assumptions similar to those used to calculate project travel. Travel from OB 3 and OB 4 was assigned to modes and routes based on the questionnaire data.

The Bayshore Freeway (US 101) is a north-south regional freeway that connects the project site with downtown San Francisco and with the Peninsula (San Mateo and Santa Clara counties) and provides access to the Golden Gate and Bay Bridges. Development in the Bayshore Corridor (that portion of the Peninsula served by the Bayshore Freeway) has recently been analyzed by the Metropolitan Transportation Commission (MTC).<sup>/5/</sup> An additional 60,000 trips per day have been projected to occur. Table D-3, p. 219 shows a summary of Projects along the Route 101 corridor.

Development in downtown San Francisco would also add travel to the Bayshore Freeway and to the regional transit routes of SamTrans and Southern Pacific / CalTrans.

Travel demand from the 18.4 million gross sq. ft. of net new cumulative office development and 0.6 million gross sq. ft. of net new cumulative retail development in

downtown San Francisco has been estimated to generate demand for about 427,000 person trip ends per day. Table D-4, p. 219 shows total square footages of projects.

Existing office and retail space in downtown San Francisco that would be replaced by new buildings was subtracted from the proposed new construction to better approximate the impacts the new buildings would have on transportation facilities. Net new office and retail space is less than total new construction as a result of subtracting out existing office and retail space on sites proposed for new buildings. ("Net new" space refers to the amount of new construction in excess of existing space on each site, in gross sq. ft. of floor space. It does not refer to net leasable nor net rentable floor space).

Future travel to downtown office buildings has been estimated as specified in the Guidelines for Environmental Impact Reports./6/ P.M. peak-hour travel from cumulative development in downtown San Francisco was assigned to modes of travel based upon the regional distributions and modal splits in the Guidelines. Peninsula-based downtown auto travel was assumed to use both the Junipero Serra Freeway (I-280) and the Bayshore Freeway (US 101). Auto travel from the Peninsula to downtown was assumed to be distributed between the two freeways in the same proportion as now exists (about 60% on US 101). Auto travel demand to the Peninsula from downtown development would be about 14,300 vehicle trip-ends (vte) per day with about 1,500 peak-hour vehicle trip-ends. Of the 1,500 peak-hour vte, about 900 were assumed to use the Bayshore Freeway in the project vicinity.

#### ACCURACY OF PROJECTIONS

The accuracy of traffic projections is limited by the accumulated accuracy of the individual components. Essentially, the uncertainty in each component compounds, making the overall analysis as accurate as the least reliable component of the analysis. The base data, which are collected as a series of counts on individual days rather than being an annual average, are subject to seasonal variations (i.e., more people take vacations during summer months, shopping travel is highest between Thanksgiving and Christmas, fewer people walk when it rains) as well as economic variations that might result from changes in the cost of gasoline, transit fares, and parking costs. The forecast information is based upon trip generation, modal split, and trip assignments data that are available for existing conditions. The projections do not assume any deviation from existing patterns. As travel patterns tend to be influenced by a variety of factors, including congestion (i.e., each traveler tries to find the optimum method of travelling to and from work), cost, choice of residence location, and individual preferences, the results of the transportation analysis do not reflect possible redistribution of existing travel patterns. Possible changes in traffic patterns have not been incorporated into the analyses because no reliable method exists to predict the individual choices that would aggregate into future travel patterns.

#### INTERSECTION ANALYSIS

The capacity analysis of each intersection at which a turning movement count was made utilized the "critical lane" method. This method of capacity calculation is a summation of maximum conflicting approach lane volumes that gives the capacity of an intersection in vehicles per hour per lane. (This method is explained in detail in an article entitled "Intersection Capacity Measurement Through Critical Movement Summations: A Planning Tool," by Henry B. McInerney and Stephen G. Peterson, January 1971, Traffic Engineering. This method is also explained in "Interim Materials on Highway Capacity",



TABLE D-3: SUMMARY OF 50 PROJECTS ALONG ROUTE 101 IN SAN MATEO COUNTY BY STATUS

<u>Project Status</u>	<u>Office/Industrial Space (Floor Area in Sq. Ft.)</u>	<u>Housing Units</u>	<u>Hotel Rooms</u>
Recently Completed or Under Construction	6,317,321	-----	1,940
Approved	6,184,038	5,020	1,150
Awaiting Final EIR Certification	1,150,000	-----	1,721
DEIR Completed	5,084,786	2,263	1,000
Proposed	<u>2,538,000</u>	<u>-----</u>	<u>-----</u>
TOTAL	21,274,145	7,283	5,811

SOURCE: Metropolitan Transportation Commission, Travel Impacts of Proposed Development on the Peninsula Along Route 101, December 3, 1982.

TABLE D-4: CUMULATIVE OFFICE DEVELOPMENT IN DOWNTOWN SAN FRANCISCO AS OF JUNE 1, 1983

<u>Project Status</u>	<u>Office (Gross Sq. Ft.)</u>		<u>Retail (Gross Sq. Ft.)</u>	
	<u>Total</u>	<u>Net</u>	<u>Total</u>	<u>Net</u>
	<u>New Constr.</u>	<u>New Constr.</u>	<u>New Constr.</u>	<u>New Constr.</u>
Under Formal Review	4,679,970	4,141,540	320,050	214,175
Approved	5,985,850	5,224,800	297,600	236,760
Under Construction	6,335,200	6,076,000	185,150	131,150
Recently Completed	<u>3,185,050</u>	<u>2,996,050</u>	<u>110,700</u>	<u>39,700</u>
Grand Total	20,036,820	18,438,390	915,500	621,790

SOURCE: Department of City Planning.



Transportation Research Circular No. 212, Transportation Research Board, January 1980). The maximum service volume for Level of Service E was assumed as intersection capacity. A service volume is the maximum number of vehicles that can pass an intersection during a specified time period in which operating conditions are maintained corresponding to the selected and specified Level of Service (see Table D-5, p. 221). For each intersection analyzed, the existing peak-hour volume was computed and a volume-to-capacity (V/C) ratio was calculated by dividing the existing volume by the capacity at Level of Service E.

NOTES - Appendix D

- /1/ Questionnaire distributed to Executive Park employees in October, 1982 by Environmental Sciences Associates. Results are on file with the Office of Environmental Review, 450 McAllister St., Fifth Floor.
- /2/ Campeau Corporation California, Traffic/Housing Survey Results, July 27, 1981.
- /3/ Trip purpose data for residential uses is from Transportation and Traffic Engineering Handbook, Second Edition, ITE, 1982. Trip purpose data for office trips is from Urban Travel Patterns for Hospitals, Universities, Office Buildings, and Capitols, Report No. 62, National Cooperative Highway Research Program.
- /4/ Proposed Specific Plan for Bayshore Office Park and Baylands Development Area, Brisbane, California, Southern Pacific Development Company, July 1982.
- /5/ Travel Impacts of Proposed Development on the Peninsula along Route 101, Metropolitan Transportation Commission, December 3, 1982.
- /6/ The regional distribution, office and retail trip generation rates, trip purposes and peak hour percentages are from the Guidelines for Environmental Impact Review, Department of City Planning, July 1983.

TABLE D-5: VEHICULAR LEVELS OF SERVICE AT SIGNALIZED INTERSECTIONS

Level of Service	Description	Volume/Capacity (v/c) Ratio(a)
A	Level of Service A describes a condition where the approach to an intersection appears quite open and turning movements are made easily. Little or no delay is experienced. No vehicles wait longer than one red traffic signal indication. The traffic operation can generally be described as excellent.	0.00-0.60
B	Level of Service B describes a condition where the approach to an intersection is occasionally fully utilized and some delays may be encountered. Many drivers begin to feel somewhat restricted within groups of vehicles. The traffic operation can be generally described as very good.	0.61-0.70
C	Level of Service C describes a condition where the approach to an intersection is often fully utilized and back-ups may occur behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so. The driver occasionally may have to wait more than one red traffic signal indication. The traffic operation can generally be described as good.	0.71-0.80
D	Level of Service D describes a condition of increasing restriction causing substantial delays and queues of vehicles on approaches to the intersection during short times within the peak period. However, there are enough signal cycles with lower demand such that queues are periodically cleared, thus preventing excessive back-ups. The traffic operation can generally be described as fair.	0.81-0.90
E	Capacity occurs at Level of Service E. It represents the most vehicles that any particular intersection can accommodate. At capacity there may be long queues of vehicles waiting up-stream of the intersection and vehicles may be delayed up to several signal cycles. The traffic operation can generally be described as poor.	0.91-1.00
F	Level of Service F represents a jammed condition. Back-ups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration. Hence, volumes of vehicles passing through the intersection vary from signal cycle to signal cycle. Because of the jammed condition, this volume would be less than capacity.	1.01+

(a) Capacity is defined as Level of Service E.

SOURCE: San Francisco Department of Public Works, Traffic Division, Bureau of Engineering from Highway Capacity Manual, Highway Research Board, 1965.

APPENDIX E: AIR QUALITY (Referenced on p. 51)  
BAAQMD, 1979 - 1981, Contaminant and Weather Summaries

TABLE E-1: SAN FRANCISCO AIR POLLUTANT SUMMARY 1979-1981

STATIONS: 939 Ellis Street and 900 23rd Street, San Francisco/a/

<u>POLLUTANT:</u>	<u>STANDARD</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
<b>OZONE (Oxidant)</b>				
1-hour concentration (ppm /b/)				
Highest hourly average	0.12 /c/	0.08	0.09	0.07
Number of standard excesses		0	0	0
Expected Annual Excess/d/		0.0	0.0	0.0
<b>CARBON MONOXIDE/e/</b>				
1-hour concentration (ppm)				
Highest hourly average	35 /c/	20	10	8
Number of standard excesses		0	0	0
8-hour concentration (ppm)				
Highest 8-hour average	9 /c/	13.8	7.5	5.3
Number of standard excesses		2	0	0
<b>NITROGEN DIOXIDE</b>				
1-hour concentration (ppm)				
Highest hourly average	0.25 /e/	0.16	0.17	0.11
Number of standard excesses		0	0	0
<b>SULFUR DIOXIDE</b>				
24-hour concentration (ppm)				
Highest 24-hour average	0.05 /e/	0.034	0.018	0.04
Number of standard excesses/f,g/		0	0	0
<b>TOTAL SUSPENDED PARTICULATE</b>				
24-hour concentration (ug/cubic meter)				
Highest 24-hour average	100 /f/	117	173	103
Number of standard excesses/h/		1	6	1
Annual concentration (ug/cubic meter)				
Annual Geometric Mean	60 /f/	42	52	56
Annual standard excess		No	No	No

/a/ In January, 1980, the monitoring functions of the Ellis Street Station were transferred to the 23rd Street Station. S.F. data after January 1, 1980, are from 23rd Street. The Ellis Street station continues to monitor for carbon monoxide. However, data collected at the Ellis station do not meet EPA or ARB criteria for representativeness.

/b/ ppm: parts per million.

/c/ National standard, not to be exceeded more than once per year (except for annual standards which are not to be exceeded). California CO 1-hr standard was reduced to 20 ppm in 1983.

/d/ Expected Annual Excess is a 3-yr average of annual excesses.

/e/ California standard, not to be equaled or exceeded.

/f/ Exceeding the sulfur dioxide standard is a violation only if a concurrent excess of the state ozone or suspended particulate standards occurs at the same station. Otherwise, the national standard of 0.14 ppm applies.

/h/ Number of observed excess days (measurements taken once every 6 days).

/i/ ug: micrograms.



APPENDIX F: ENERGY (Referenced on pp. 57 and 114)  
(Environmental Science Associates)

California Administrative Code Title 24 (Energy Building Regulations for New Residential and Nonresidential Buildings) standards apply to all new construction initiated in California after July 1, 1978. Enacted at the state level to answer public concern over real energy shortages and rising energy prices, the law is enforced at the local level through the building permit required for all construction. Title 24 provides two methods of compliance: prescriptive and performance standards. Prescriptive standards consist of required design features that ensure a minimum level of energy efficiency, while performance standards consist of allowable energy budgets that, if met through innovative building and equipment design, exempt the building from some of the prescriptive requirements. Before a building permit can be issued, a licensed engineer must certify the building's compliance with Title 24. If local governments fail to enforce the Title 24 regulations properly, the State may, after proper notice, take enforcement action.

For each nonresidential building, Title 24 performance standards set the following maximum annual allowable energy consumption budgets in Btu per gross sq. ft. of floor area which is mechanically heated or cooled

Offices (heated and cooled)	126,000
Offices (heated only)	124,000
Retail	180,000
Restaurants	131,000

Section 31.26(e), Chapter 3, San Francisco City Administrative Code. The Code requires that the following information about the energy performance of a project be provided in each environmental impact report prepared by the City: connected electrical load, electricity and fossil fuel consumption, and building energy budget. A discussion of measures to mitigate energy consumption is also required.

Citizens' Energy Policy Advisory Committee (CEPAC). Pursuant to a resolution of the Board of Supervisors, the Citizens' Energy Policy Advisory Committee was appointed by the Mayor in 1981 to study energy-related problems and opportunities in the City, and to make recommendations concerning energy conservation for the entire city.

The second, and final, report of CEPAC contains recommendations for energy conservation for the residential, commercial, and industrial sectors, which account for about 95% of the conventional energy supplies consumed in San Francisco each year. Many of CEPAC's recommendations have been adopted by the City in the Energy Element of the Comprehensive plan.

Energy Element, San Francisco Comprehensive Plan, July 3, 1982. This Plan contains policies to:

- assure reliable and affordable energy supplies in the City;
- improve the City's ability to respond to a fuel or power emergency
- reduce building energy consumption;
- increase energy efficiency of transportation; and
- increase use of alternative energy technologies and renewable energy sources.

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TABLE F-1: APPLICABLE ENERGY CONSERVATION PLANS AND POLICIES  
(referenced on pp. 57 and 114)

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Objective 2: reduce energy consumption for existing housing and increase the energy efficiency of new housing

<u>Policy</u>	<u>Project Compliance Status</u>
<u>2.2:</u> Encourage building design and orientation to minimize energy consumption.	Building design and orientation are determined by several considerations, including energy conservation.
<u>2.3:</u> Encourage use of energy conserving appliances and lighting.	The project sponsor would install energy efficient appliances as required by Title 24, California Administrative Code.
<u>2.4:</u> Discourage use of master metering and foster conversion to individual metering.	Residential units would be individually metered. Office space would likely be master metered.

Objective 3: Reduce consumption in the non-residential sector by improving energy management practices and raising building efficiency standards.

<u>Policy</u>	<u>Project Compliance Status</u>
<u>3.2:</u> For large scale projects, encourage cogeneration or connection to district heating.	No district heating system is available in the project area; the project would not include cogeneration.

Objective 4: Increase the energy efficiency of transportation

<u>Policy</u>	<u>Project Compliance Status</u>
<u>4.1:</u> Promote alternatives to motor vehicle use.	The project would not be convenient to public transit, unless proposed expansion to the site of Muni and SamTrans service is implemented.
<u>4.2:</u> Promote a land use pattern which reduces the distance between working, shopping, and living areas.	The project would reduce distances between living, working, and shopping areas for some project residents. The project site is remote from the downtown core, and from other shopping areas in the City.

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SOURCE: City of San Francisco and Environmental Science Associates, Inc.

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ENERGY CONSERVATION PRINCIPLES (Referenced on p. 156)

Prior to issuance of a building permit, the Department of City Planning could require, as a condition of project approval, a report containing an assessment of the cost effectiveness of the energy conservation measures listed below. For measures which would not be included in the project, the report would state reasons for rejection.

- 1) passive solar energy design;
- 2) thermal buffers along north ends of buildings to reduce interior heat loss;
- 3) increase in natural interior illumination (daylighting) through atriums, skylights, etc.;
- 4) exterior shading devices, such as horizontal overhangs on south facing windows -- these devices may also increase air circulation;
- 5) heat reflective glass for all windows except north-facing windows;
- 6) economizer cycle (which increases use of outside air) in air conditioning systems;
- 7) alternates to air conditioning, including natural ventilation;
- 8) computer monitoring systems for HVAC and lighting;
- 9) alternative energy systems for hot water;
- 10) heat recovery systems.



## APPENDIX G: ECOLOGY (Referenced on p. 119 and p. 158)

The following is a preliminary list of plant materials recommended for the hillside of San Francisco Executive Park. The list has been provided by the project's Landscape Architect, Sara Liss-Katz, of Hellmuth, Obata, and Kassabaum.

TREES

Cupressus macrocarpa	Monterey cypress
Pinus muricata	Bishop pine
Acacia longifolia	Sidney golden waffle
Acacia melanoxylon	Black acacia
Eucalyptus	

SHRUBS

Acacia verticillata	
Ceanothus "Ray Hartman"	
Ceanothus thyrsiflorus	
"Snow Flurry"	
Myoporum laetum	Myoporum
Prunus illicifolia	Hollyleaf cherry
Prunus lyonii	Catalina cherry
Cytisus canariensis	Canary Island broom

SHRUBS (Suitable for Serpentine Soils\*)

Arctostaphylos franciscani	Ceanothus jetsonii
Arctostaphylos pungens ravenii	Ceanothus pumilus
Arctostaphylos montana	Ceanothus cyneatus
Arctostaphylos manzanita	Fremontodendron species
Arctostaphylos obispoensis	Rhododendron occidentale
	Quercus wislizenii

\*Jack Sigg, Horticulturalist, San Francisco

CASCADING PLANTS

Baccharis pilularis	Dwarf coyote bush
Ceanothus griseus horizontalis	Carmel creeper
Cistus	Rockrose
Rosmarinus officinalis	Rosemary
Cytisus kewensis	Broom
Hedera canariensis	Algerian ivy

Plants for developed areas would include street trees, smaller plaza trees, groundcovers cascading down building terraces, and tree and shrub hedges. Surface parking for OB 3 would be landscaped in a manner similar to that in the parking areas for OB 1 and OB 2. The following plant list provides a variety of plants that would be used at the Executive Park site:

STREET TREES

Eucalyptus species	
Platanus acerifolia	London Plane Tree
Acacia melanoxylon	Black acacia

APPENDIX G: ECOLOGY (continued)

PLAZA TREES

Ficus nidita	Indian laurel
Eucalyptus ficifolia	Red flowering gum
Pittosporum undulatum	Victorian box
Prunus blireiana olinera	Flowering plum
Myoporum laetum	Myoporum

GROUND COVERS

Hedera canariensis	Algerian ivy
Hedera helix	English ivy
Osteospermum fruticosum	African daisy
Lawn	
Ceanothus griseus horizontalis	Carmel creeper

APPENDIX H: EMPLOYMENT, HOUSING AND FISCAL FACTORS  
(Environmental Science Associates)

TABLE H-1: DISTRIBUTION OF HOTEL OCCUPANTS' EXPENDITURES\*

	<u>Percent</u>	<u>Dollars Spent** (in millions)</u>
Restaurants Outside of Hotel	32.7%	\$3.635
Retail Stores	24.5	2.724
Local Transportation	6.8	0.756
Sightseeing	4.1	0.456
Entertainment	14.6	1.623
Auto: Oil, Gasoline, Service	5.6	0.623
Other Items	<u>11.7</u>	<u>1.301</u>
TOTAL	100.0%	\$11.116

\* Based on city-wide distribution of 1981 combined tourism expenditures prepared by Dr. Dirk Wassenaar for the San Francisco Convention and Visitors Bureau, May 5, 1982.

\*\* Dollars spent based on expenditures of \$128.81 per visitor per day in 1981 and the fact that about 55% of expenditures occur outside the hotel, from the above source.

SOURCE: Environmental Science Associates, Inc.



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TABLE H-2: DISTRIBUTION OF HOTEL ROOM TAX REVENUES FROM THE PROJECT (1982 DOLLARS)\*

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	<u>Percent</u>	<u>Revenues**</u>
City's General Fund	25.0%	\$140,100
Moscone Convention Center Construction	41.0%	229,800
Candlestick Park Bonded Indebtedness	5.1%	28,600
Low-income Housing in Yerba Buena Center Redevelopment Area	5.1%	28,600
Maintenance of Performing Arts - War Memorial Fund	7.0%	39,200
Convention Facilities Fund	7.0%	39,200
Publicity and Advertising Fund	9.8%	54,900
	<hr/>	<hr/>
	100.0%	\$560,500

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\* Based on about \$5.75 million in annual hotel room sales and a hotel room tax rate of 9.75%.

\*\* Revenues rounded to the nearest \$100. Total may not add due to rounding.

SOURCE: Campeau Corporation and Environmental Science Associates, Inc.

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#### FACTORS INFLUENCING DEMAND FOR HOTEL ROOMS

Many factors influence the demand for hotel rooms. The health of the national economy is an important predictor of domestic tourists, but other factors such as air fares and hotel labor disputes have affected the number of visitors. The international economy, especially the exchange rate of foreign currencies relative to the American dollar, affects the number of foreign visitors, who were about 35% of all pleasure travelers in San Francisco in 1980./1/ The number of convention and business visitors also affects the demand for hotel lodging.

All of these factors combine to make predictions of hotel room demand uncertain. One public accounting firm estimates that the demand for hotel rooms in San Francisco will increase at an average annual noncompounded rate of 2.6% for quality hotel rooms between 1981 and 1989./2/ The demand for hotel rooms near San Francisco Airport has grown at about 4 to 5% in the last two years./3/ One of the growth factors cited is the opening of George R. Moscone Convention Center, which will enable the City to attract many of the larger conventions that have gone to other cities because San Francisco lacked adequate facilities. Since major-convention organizers plan their events five to seven years in advance, the full impact of Moscone Center will not occur until 1986, when convention delegates staying in San Francisco hotels are projected to be about 1,000,000 per year./4/

It is not known whether future demand will be sufficient for the hotel to achieve profitable occupancy. A decline in the tourism business in 1981 and the summer of 1982 resulted in lower average occupancy rates than in 1980./2/ With the increasing supply of hotel rooms resulting from hotels that are proposed and under construction, an oversupply of hotel rooms in San Francisco and San Mateo Counties is possible. The likelihood of this occurrence is not possible to forecast because of the uncertainty of future economic conditions.

#### NOTES - Factors Influencing Hotel Demand

/1/ San Francisco Convention and Visitors Bureau, 1980 Annual Report.

/2/ Kirke Wrench, CPA Supervisor, Pannell, Kerr, Forster (Certified Public Accountants), telephone conversation, November 15, 1982.

/3/ John Steen, Executive Director, San Mateo County Convention and Visitors Bureau, telephone conversation, January 12, 1983.

/4/ Dale Hess, General Manager, San Francisco Convention and Visitors Bureau, telephone conversation, November 27, 1981.

#### FACTORS DETERMINING HOUSING AFFORDABILITY

The ability of a household to afford housing is based on: 1) the number of new households generated as a result of the increase in office space; 2) the location preference of these households; and 3) the ability of these households to pay for housing.

It is not possible to simply survey the employees of prospective tenants about housing affordability parameters because not all of the new employment attributable to the project would be located on the project site. It has been demonstrated that new downtown office space is occupied primarily by the expansion of existing San Francisco businesses that relocate to the new buildings. For this reason, most of the employees in new downtown office buildings are already employed in San Francisco./1/ Available data indicate that this phenomenon is similarly applicable to Executive Park. A survey of office tenants at OB 1 in July 1980 indicated that 47% of the tenants that responded to the survey had relocated from San Francisco./2/ At that time, only 13% of the tenants had been attracted to the site from outside the City while the remainder (40%) opened new offices and did not have a previous location./2/

Housing demand attributable to the project must be projected based on the net new employment generated by the project that would be distributed at the site and elsewhere in the City and San Mateo County.

Most of the new employment growth due to the project would occur as new jobs were created in older buildings which would be vacated by workers (or firms) moving to the project. As tenants for the project are not known, it is impossible to predict which buildings would be vacated for the project (and which buildings would be then vacated to fill the former level of vacated space, etc.) Even if tenants were known, the same difficulty of determining all the iterations of tenant movement would apply. For the above reasons, it is not possible precisely to quantify new employees and their incomes due to the project.

Where an employee will live is the result of individual decision-making. Such decisions are a function of location preference and housing economics. Preference information is complex, involving many factors such as number of bedrooms, type of neighborhood, family composition, and commute distance to work. Information concerning housing preferences would be obtainable through surveys of new office workers, if these individuals could be identified.

If the number of new employees and their preferences for housing were known, the most critical variable affecting the housing affordability analysis would be a new household's ability to pay for housing. The salary of new workers alone is insufficient to determine housing affordability; for example, the total income of all members of the new worker's household must be known. A variety of published sources gives salaries for various occupational categories, but no comprehensive data regarding the distribution of household income among office workers (or any other group of workers) exists. City-wide household income estimates based on the 1980 Census will be available in 1983, but this data source will not reflect household income of downtown office workers.

Parameters that determine housing affordability for an individual household include the ratios of housing expenses to income and the down payment for home ownership. The ratios of housing expenses to income, according to the "Office Housing Production Program (OHPP) Interim Guidelines", January 1982, are 30% of household income for rental expenses and 38% of household income for home ownership expenses. The down payment for home ownership may be assumed to be between 10% and 20% of purchase cost; however, a household's ability to afford a down payment would depend on household assets and liabilities, and would vary widely for different households. Assumptions regarding mortgage interest rates must also be made. Considering the volatility of interest rates in recent years, an affordability analysis based on current market interest rates might not be relevant when the project is completed and occupied.

#### NOTES - Factors Determining Housing Affordability

/1/ 101 Montgomery Street Final EIR, EE 80.26, Certified May 6, 1981.

/2/ San Francisco Executive Park Marketing Study, Mills-Carneghi Inc., August 22, 1980.



TABLE H-3: HOUSING AFFORDABILITY BY HOUSEHOLD INCOME

Gross Annual Income Per Household or Per Individual	Maximum Affordable Monthly Housing Expenditure	Housing Cost and Type of Unit		Source
		Monthly Cost**	Type of Unit (Price)	
\$5,000	\$125			
9,600 (a)	240			
10,000	250			
10,680	267	\$267	Census Median Rent	(e1)
11,560	289	289	Studio Apartments	(f1)
15,000	375			
18,200	455	455	Median Rent, All Units	(f2)
20,000	500			
23,520	588	588	Rent, 3+ Bedroom Units	(f3)
25,000 (b,h)	625			
27,300 (c)	683			
30,000 (b)	750			
35,000	875			
40,000	1,000			
40,880	1,022	1,022	Lowest House Price (\$95,000)	(g1)
45,000	1,125	1,125	Census Median Value (\$104,600)	(e2)
50,000 (h)	1,250			
52,560 (d)	1,314			
55,000	1,375			
65,080	1,627	1,627	Median House Price (\$151,203)	(g2)
101,880	2,547	2,547	Highest House Price (\$236,750)	(g3)
300,000 (d)	7,500			

\* The Office/Housing Production Program (OHPP) Interim Guidelines (January, 1982) define affordable housing as follows: rental expenses not exceeding 30% of gross monthly income, adjusted for family size; and home ownership expenses not exceeding 38% of gross monthly income, adjusted for family size, including mortgage payments, property taxes, insurance, and/or homeownership association dues. For the purpose of this table, 30% of gross monthly income is used to calculate housing affordability for both renters and owners. For owners it is assumed that 8% of gross monthly income would cover property taxes, insurance, and/or homeownership association dues and other related expenses. No adjustment has been made for family size because family circumstances vary widely.

\*\* Monthly housing costs refer to rents and to mortgage payments for the housing prices shown in parentheses; sources of rents and house prices are as footnoted. Monthly costs of ownership housing were calculated as monthly mortgage expenses, assuming 20% down payment, 30-year mortgage, and 16% interest rate, not including insurance, property taxes, and other related housing costs.

TABLE H-3: HOUSING AFFORDABILITY BY HOUSEHOLD INCOME (continued)

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- a. U.S. Bureau of Labor Statistics, March, 1982, "Area wage survey for the San Francisco-Oakland, California Metropolitan Area." \$9,600 was the mean 1981 income of inexperienced file clerks, one of the lowest-paid office occupations listed.
- b. The range of \$25,000 to \$30,000 is assumed to approximate the median annual income of office employees (see 466 Bush Street FEIR EE 81.175, certified August 16, 1982).
- c. The \$27,300 income figure was derived by inflating the \$16,300 median income of downtown office workers from the 1974 SPUR survey through December, 1981 by 67%, using U.S. Bureau of Labor Statistics national wage information for nonsupervisory finance, insurance, and real estate sector employees since 1974.
- d. Montgomery-Washington Building FEIR, 81.104E, certified January 28, 1982. The median salary of wage earners working at 601 Montgomery St. was estimated to be \$52,560 and the highest salary for corporate officers \$300,000, according to a 1981 survey.
- e. City Planning and Information Services, "1980 Census Information," March 1982:  
 1. median rent      2. median noncondominium housing value. Rental data include residential hotels whose rent levels may be substantially lower than other types of rental dwellings and may therefore have an effect on the median rent.
- f. Department of City Planning, "Rent Survey," 1980. Median rents are for:  
 1. studio apartments      2. all units      3. 3+ bedrooms  
 These data are based on a small nonrandom sample of newspaper ads and may not reflect true rental costs.
- g. San Francisco Board of Realtors, "Multiple Sales Service," October 5, 1981. (Annual data on housing sales prices include all homes listed by the Board of Realtors that were sold from February 11, 1981 to October 1, 1981 in San Francisco):  
 1. lowest price      2. median price      3. highest price
- h. The median household income of existing employees at OB 1 and OB 2 was between \$25,000 and \$49,999 according to a survey conducted by Environmental Science Associates, Inc. (see Table 12, p. 124).
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SOURCE: Environmental Science Associates, Inc.

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TABLE H-4: PROJECTED EFFECTS OF OFFICE DEVELOPMENT ON REGIONAL HOUSING MARKETS, 1983-1995

	Project Demand in 1995	Project + OB-3 and -4	Gross Cumulative Demand 1983 to 1995 (b)		Net Housing Stock Growth, 1983 - 1995	Demand as a Percent of Growth, 1983-1995	
	No. of Households (a)		No. Emp.	No. Households	No. Units (c)	Project	Cumulative + Executive Park
San Francisco	1,020 to 1,175	1,265 to 1,455	11,100 to 29,500	7,900 to 16,400	18,000	5.7 to 6.5	50.9 to 99.2
Peninsula (San Mateo and Santa Clara Counties)	1,100	1,340	13,300	10,200	123,000	0.9	9.4
East Bay (Alameda and Contra Costa Counties)	310	380	22,100	17,000	151,900	0.2	11.4
North Bay	295	360	8,900	6,800	53,700	0.5	13.3
TOTAL	2,715 to 2,980	3,335 to 3,635	55,400 to 73,800	41,900 to 50,400	346,600	0.8 to 0.9	13.1 to 15.6

(a) The project distribution of employees and households resulting from Executive Park is based on the OHPP Interim Guidelines (40% live in San Francisco and 1.8 workers would occupy each household) and a survey of employees of OB-1 and -2 that revealed: 37% live in San Francisco with 1.45 workers per household; 42% live in the Peninsula with 1.91 workers per household; 12.5% live in the East Bay with 2.00 workers per household; and 8.5% live in the North Bay with 1.43 workers per household.

(b) Total office space considered in this analysis is about 18.4 million sq. ft. of net new office space (see Appendix D, Table D-4) and does not include Executive Park. The proposed Housing Element (May 1982) estimates San Francisco housing needs from 1980-85 in Table 21A. This estimate, based on the Citizen's Housing Task Force Report, July 21, 1982, shows a need for about 16,000 to 19,000 units. The "needs" estimate uses a similar office development basis, but also includes housing demand generated by other sources in addition to office development and covers the years 1980-85. The range of San Francisco employees and households for downtown office use is based on 101 Montgomery Street Final EIR, EE 80.26, Certified May 7, 1981 (15-30% of all employees would reside in San Francisco and 1.4 workers would occupy each household) and "Office Housing Production Program (OHPP) Interim Guidelines," Department of City Planning, January 22, 1982 (40% of all employees would reside in San Francisco and 1.8 workers would occupy each household). Distribution of employees for other counties is based on weighted average of expected employees in Federal Reserve Bank (EE 78.207), 101 California Street (EE 78.27), Pacific Gateway, (EE 78.61), and Crocker National Bank (EE 78.298), from 456 Montgomery Street Final EIR (EE 78.178) p. 167 (18% in the Peninsula, 30% in the East Bay, and 12% in the North Bay). Number of workers per household in these counties is assumed to be 1.3 based on 1980 Census data.

(c) Net housing stock growth is based on "Projections 79," Association of Bay Area Governments, January 1980. Projections contained in this document for 1980-1995 were prorated to reflect 1983-1995 net housing stock growth.

SOURCE: Environmental Science Associates, Inc.







